# Repression and Mobilization in Civil War: The Consequences of State Violence for Wartime Collective Action

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# Abstract

This thesis examines how social processes within insurgent organizations as well as within civilian communities are affected by state violence against civilians in civil war, and how these dynamics relate to conflict termination and outcome. Drawing on both crossnational ('macro') and subnational ('micro') data from Peru, the thesis demonstrates that the effects of state violence are much more complex than previously understood. The thesis shows, first, that indiscriminate state violence promotes the fragmentation of insurgent organizations, an effect theorized to be achieved through the combined effect of surges in fresh recruits, reduced secondary cohesion, and increased primary cohesion. The findings also suggest, in line with the theory, that this effect is mitigated if insurgent institutions for screening and indoctrination that forge and sustain the commitment of individual fighters to the organization as a whole are strong. Second, the thesis shows that indiscriminate state violence can promote civilian counterinsurgent mobilization at the community level. This counterintuitive effect is argued to be driven by two main mechanisms. One is through the incentives for targeted communities to signal their non-allegiance to the insurgents, while the other is through the sustained militarization of local governance. Finally, the thesis links these effects and mechanisms to the macro-level and demonstrates that the collective targeting of civilians by state actors, while suppressing conflict activity in the short term, is ultimately deeply counterproductive.

Diese Dissertation untersucht die Konsequenzen staatlicher Gewalt gegen Zivilisten in Bürgerkriegen. Der Fokus liegt insbesondere auf sozialen Prozessen innerhalb von Rebellenorganisationen und auf der Ebene von zivilen Gemeinschaften. Untersucht werden auch die Implikationen für den Ausgang von Konflikten. Es wird anhand von Makro- und Mikrodaten zu Peru gezeigt, dass die Effekte staatlicher Gewalt komplexer sind als bisher angenommen. Die Dissertation zeigt erstens, dass staatliche Gewalt gegen Zivilisten die Fragmentierung von Rebellenorganisationen fördert, ein Effekt welcher der entwickelten Theorie zufolge verursacht wird durch den Zuwachs an Rebellen, reduzierter sekundärer Kohäsion, und gestärkter primärer Kohäsion. Die Resultate stützen zudem die These, dass starke Institutionen der gezielten Rekrutierung und Indoktrinierung diesen Effekt mindern können. Zweitens zeigt die Dissertation, dass willkürliche staatliche Gewalt die Mobilisierung von Zivilisten gegen Rebellengruppen fördern kann. Dieser Effekt ist gemäß der Theorie getrieben durch zwei Mechanismen: Die Bestrebungen der Lokalbevölkerung, der Regierung zu signalisieren, nicht mit den Rebellen in Verbindung zu stehen, und der Militarisierung lokaler Autoritätsformen. Diese Dynamiken werden drittens mit der Makroebene verknüpft. Es wird gezeigt, dass kollektive staatliche Gewalt gegen Zivilisten Konflikte kurzzeitig unterbinden kann, jedoch langfristig kontraproduktiv ist.

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# Part I

# Introduction, Theory and Methodology

# Chapter 1

# Introduction

Indiscriminate state violence against civilians, regrettably, remains a common feature of internal armed conflicts, and the effects of such atrocities on subsequent conflict dynamics have been subject to intense scholarly debate.[1] Some studies have concluded that indiscriminate state violence is among the key forces that drive rebel recruitment and noncombatant support (e.g., Mason and Krane, 1989; Wood, 2003*a*; Kalyvas and Kocher, 2007) and hence, one potential determinant of conflict duration (e.g., Goodwin, 2001; Peceny and Stanley, 2010). Other authors have highlighted the potential 'effectiveness' of state violence in curbing insurgent capacities, including their ability to mobilize civilian collaboration and to counterattack (e.g., Lyall, 2009). The evidence remains ambiguous. While

[1]This type of violence is not restricted to state agents, as many insurgent groups resort to the collective targeting of civilians as well (e.g., Humphreys and Weinstein, 2006*a*; Hultman, 2007; Weinstein, 2007). This dissertation, while taking insurgent violence against civilians into account, is concerned with the effect of state violence. The causes of indiscriminate state violence are numerous: It may be a purposively employed military strategy to physically disrupt, if not entirely eliminate, civilian support in the form of supplies, information, and shelter for insurgent groups – in other words, it may be a strategy of 'draining the sea,' as Valentino, Huth and Balch-Lindsay (2004) and Downes (2007*a*) put it in allusion to the famous dictum of Mao (2000[1937]), according to which guerrilla forces can be compared to fishes and civilians to the water. Indiscriminate state violence can also be a strategy of imposing costs on the adversary and to signal resolve, both of which can increase a warring party's leverage at the bargaining table (Hultman, 2007), or it may be used to deter civilian collaboration with the enemy (Kalyvas, 2006) and to harm the insurgents' military effectiveness by creating logistical problems and by turning civilians against them (Lyall, 2009). And yet, even if indiscriminate violence is not deliberately employed by state agents – be it out of ethical or strategic considerations –, it may still occur as a result of of principal agent problems (Mitchell, 2004) or the lack of appropriate resources – particularly the infrastructure to obtain high-quality local information (Kalyvas, 2006) – to distinguish insurgents and the insurgents' close collaborators from ordinary civilians (Mason and Krane, 1989; Mason, 2004; Kalyvas and Kocher, 2007). For an overview of the sources of indiscriminate violence, see Kalyvas (2006, 160ff.).

state violence has reportedly often swelled the rebels' ranks with new followers (e.g., Viterna, 2006; Nillesen and Verwimp, 2009), studies also document cases where insurgencies were successfully crushed by indiscriminate state violence (e.g., Downes, 2007*a*), and conflicts where whole communities have aligned themselves with state forces – despite the state having been repeatedly responsible for massacres against them (e.g., Stoll, 1993; Fumerton, 2002). Thus, while research on wartime violence and mobilization has made significant progress in recent years, existing arguments on the consequences of indiscriminate state violence for subsequent conflict dynamics are difficult to reconcile, and the empirical evidence remains largely inconclusive.

One major limitation of the existing literature has been a lack of theoretical integration across different levels of analysis and dependent variables. On one side, the narrow focus on single mechanisms and outcomes (such as insurgent recruitment or insurgent violence) in micro-level studies typically does not facilitate the derivation of implications regarding higher-order processes such as conflict duration and termination.[2] Even a cursory look at previous research shows that the effects of indiscriminate state violence on subsequent conflict processes do not point neatly in one single direction. For instance, state violence may affect the capacity of insurgents to mobilize followers or to establish territorial control differently than their capacity for offensive violence (Nillesen and Verwimp, 2009; Lyall, 2009; Kocher, Pepinsky and Kalyvas, 2011). On the other side, many macro-level studies do not do justice to the complexity of lower-order mechanisms driven by state violence due to problems of theoretical and empirical overaggregation as well as problems of causal inference.[3] Therefore, we know little about how different micro-

[2]For a similar critique with regards to the literature on the *determinants* of violence against civilians in civil wars, see Kalyvas (2012).

[3]A first group of studies dealing with the effects of state violence features 'conflict' as its unit of analysis and 'conflict outcome' as the *explanandum*(Arreguin-Toft, 2005; Downes, 2008; Merom, 2003; Goodwin, 2001; Lyall and Wilson, 2009). The key concern with these studies is that they make it difficult to discern the causal mechanisms that link strategies of violence with dynamics of mobilization and armed competition due to the 'overaggregation' of their unit of analysis. Recent contributions have tried to overcome these shortcomings by relying on micro-comparative research designs that address the consequences of armed groups' strategies of violence in specific conflicts. The majority of these studies concentrate on the timing and magnitude of insurgent attacks as the dependent variable (Lyall, 2009; Lyall, 2010*a*; Condra and Shapiro, 2012). However, even if violence affects the ability of opposing actors to counterattack, this is not necessarily in line with its effect on the latter's capacity to mobilize followers and civilian support in the longer run (cf. Mason and Krane, 1989; Kocher, Pepinsky and Kalyvas, 2011). Kocher, Pepinsky and Kalyvas (2011) provide evidence that aerial bombing campaigns

level mechanisms interact to produce pathways through which state violence affects the longevity of insurgent organizations and conflict outcomes. Moreover, while the literature on the causes and consequences of wartime violence has steadily increased over the past years, surprisingly little has been written to improve the theoretical and empirical understanding of the impact of state violence on wartime collective action within civilian communities on one side and on the internal dynamics of insurgent organizations on the other. While most studies examining the consequences of state violence rely heavily on very specific assumptions about civilian behavior, these assumptions are rarely subjected to rigorous empirical investigation.[4] Similarly, the assumption of insurgent organizations as unitary actors with uniform and stable preferences remains largely unchallenged in this literature. How state violence affects different types of wartime collective action, both within civilian communities and insurgent organizations, and how these processes relate to each other and to higher order processes still needs to be scrutinized in greater detail, both theoretically and empirically.

This dissertation aims to overcome these obstacles and to further our understanding of the relationship between state violence and subsequent conflict dynamics by integrating multiple levels of analysis and by relaxing the standard assumptions of stable preferences of individuals and groups, of insurgent organizations as unitary entities, and of civilians as supernumerary actors. It introduces, first, a theoretical argument and supporting empirical results on the impact of indiscriminate state violence on insurgent cohesion and defection that integrates mechanisms at the individual, group, and organizational level. Second, it theorizes and examines the influence of state violence on counterinsurgent

during the Vietnam War increased downstream territorial control of the Vietcong. Using household and community level (survey) data, Nillesen and Verwimp (2009) find that during the civil war in Burundi, violent state repression increased subsequent rebel recruitment at the village level. Other studies have focused on individual-level determinants of pro- and counterinsurgent recruitment. In a survey of non- and ex-combatants in Sierra Leone, Humphreys and Weinstein (2008) show expected safety to be strongly related to voluntary participation in both insurgent and counterinsurgent forces, thereby supporting the notion of protection from violence being a highly valued incentive offered to participants in armed groups. However, Arjona and Kalyvas (2007) provide no support for this hypothesis in their survey of ex-combatants in Colombia. For more extensive discussions of the diverging arguments on the effects of indiscriminate violence see Downes (2007*a*, 420ff.), Kalyvas (2006, 151ff.), Kocher, Pepinsky and Kalyvas (2011, 203f.), and Lyall (2009, 334ff.). A comprehensive overview of the literature is also provided in chapter 2.

[4]One of the most notable exceptions is Wood (2003*a*).

collective action at the community level. Third, these micro- and meso-level dynamics are then linked to the macro level by deriving and testing their implications for conflict duration and termination. Together, the findings theoretically and empirically illuminate the complex implications of indiscriminate state violence for mechanisms of insurgent fragmentation, civilian collective action, and conflict duration. In so doing, this work significantly advances the understanding of how societies and insurgent organizations respond to indiscriminate state violence and of how these processes interact to influence the dynamics of conflict duration and termination.

## 1.1 Research Questions and Outline

In this dissertation I seek to advance the understanding of the effects of indiscriminate state violence on subsequent patterns of wartime collective action by systematically studying the consequences of state violence for cohesion and coordinated defection within insurgent organizations on the one hand and counterinsurgent collective action at the community level on the other – and by specifying and testing the implications of these mechanisms for conflict processes at the macro level. In an explicit departure from the majority of previous conflict studies, this dissertation thus integrates multiple levels of analysis and abandons the canonical assumption underlying much of current research on civil wars, namely, that conflict dynamics are exclusively driven by two types of unitary actors – rebel groups and the state.

Specifically, in this dissertation I address three distinct but closely related research questions in detail: How does state violence affect the cohesiveness and vulnerability to fragmentation of insurgent organizations? What effect does state violence have on counterinsurgent collective action within civilian communities? And what are the consequences of theses processes and their underlying mechanisms for conflict duration and termination?

I thus seek to illuminate the consequences of violent repression by specifying the conditions and mechanisms that link indiscriminate state violence to the concerted de-

fection within insurgent organizations that underlies insurgent fragmentation, to counterinsurgent collective action within civilian communities, and to processes of conflict continuation or termination. Empirically, I rely on both cross-national ('macro') and subnational ('micro') data and a combination of quantitative methods for causal inference in observational studies. Apart from adding to the literature on conflict duration and participation, this dissertation also aims to contribute to a better understanding of the ways in which societies and armed groups respond to state violence and of how institutions are transformed by violent conflict.

I begin in chapter 2 by reviewing the previous literature on insurgent cohesion and fragmentation, counterinsurgent mobilization, and conflict duration and termination in detail, with a particular focus on studies that have tried to shed light on the role of state violence as a causal variable.

In chapter 3 I proceed by developing my theoretical framework, first introducing my argument on the consequences of indiscriminate state violence for insurgent cohesion and defection that integrates mechanisms at the individual, group, and organizational level before shifting the focus to the effects of state violence on the propensity for counterinsurgent collective action at the community level. These dynamics are then linked to the macro level by deriving their implications for conflict duration and termination.

Chapter 4 is dedicated to the methodological approaches and strategies of this dissertation. While the literature on the consequences of state repression has made significant inroads over the past years, most existing studies still suffer from severe identification problems. Relying on the counterfactual approach to causality, I use a combination of identification strategies to deal with the challenges of causal inference in observational studies, such as matching, entropy balancing, difference-in-differences estimation, and spatial regression discontinuity.

In chapter 5, I develop and test a theory on the consequences of state violence for insurgent cohesion and fragmentation. I argue that indiscriminate state violence will increase the probability of insurgent fragmentation, defined as the process through which insurgent organizations split into distinct entities, each with its own social composition,

goals, and leadership. My argument rests on the interaction of several mechanisms at the individual, group, and organizational level, and suggests that while indiscriminate state violence tends to increase the insurgents' mobilization capacity and strengthen the cohesion among primary group members, it will weaken the commitment of individuals to the overall organization through the disruption of intra-organizational coordination, institutional indoctrination, and strategic unity among the leadership. I further argue that this joint effect of increased primary and reduced secondary cohesion in combination with surges of fresh recruits is likely to promote insurgent fragmentation. I also propose, however, that extant institutional capacities condition these effects of indiscriminate state repression. If existing institutions that foster commitment among combatants to the overall organization are strong, the divisive effects of indiscriminate state violence are mitigated. The implications of this argument are empirically tested and supported based on a dataset of 114 post-Cold War conflicts.

Chapter 6 is concerned with the reconfiguration of social networks through polarization and militarization (Wood, 2008), a process which I will examine closely in a micro-level study of the Peruvian armed conflict. While recent research has shown that wartime victimization can translate into an increased local capacity for collective action (e.g., Gilligan, Pasquale and Samii, 2011; Voors, Nillesen, Verwimp, Bulte, Lensink and Van Soest, 2012), little is known about how civilian communities actually do respond to civil war violence.[5] My goal in chapter 6 is to contribute to this literature by focusing on the specific effects of indiscriminate state violence on one particular type of community-based collective action, the mobilization of ordinary citizens into civil defense forces. Counter-revolutionary mobilization often has profound consequences for subsequent dynamics of political violence, yet despite the recent surge in microlevel research on war-time violence and mobilization, very little is known about this type of collective

[5]Gilligan, Pasquale and Samii (2011), based on behavioral games and survey data, find that members of communities with greater exposure to violence during Nepal's civil war exhibit a greater willingness to invest in trust-based transactions and the provision of collective goods, an effect they trace to the promotion of pro-social norms at the community level. Voors et al. (2012) find, based on observational and experimental data from Burundi, more altruistic, more risk-seeking, and more impatient behavior among individuals who were exposed to violence either directly or lived in communities that were assaulted. On the positive impact of exposure to state violence on the propensity for collective action, see also Bellows and Miguel (2009).

action. I advance a theoretical distinction between 'top-down' and 'bottom-up' processes of counterinsurgent mobilization, and subsequently focus on the more puzzling case of the latter. I then develop a theoretical argument according to which one common and particular type of state violence, marked by direct and collective targeting, is likely to promote counterinsurgent mobilization as a form of militarized local governance in irregular war. Empirically, I study variation in state violence and counterinsurgent mobilization in the Peruvian armed conflict during the 1980s. Using geo-referenced data and two distinct identification strategies, I investigate how exposure to state violence affected subsequent mobilization of ordinary citizens into civil defense forces at the community level. First, I combine propensity score screening and matching with difference-in-differences estimation to account for observed and time-invariant unobserved heterogeneity between targeted and untargeted villages. Second, I rely on a spatial regression discontinuity approach that exploits the fact that state repression was largely confined – *de iure* and *de facto* – to specific districts and provinces. The results consistently suggest a positive effect of state violence on counterinsurgent collective action in Peruvian villages and towns.

In chapter 7 I integrate the arguments developed and tested in chapters 5 and 6 into a multi-level theory of conflict duration and termination. In essence, I argue that indiscriminate state violence tends to suppress armed competition in the short term, but that it promotes insurgent survival, insurgent victories, and conflict recurrence in the longer run. Empirically, I test my hypotheses on a dataset of internal armed conflicts active between 1989 and 2003. My results demonstrate that indiscriminate state violence promotes both insurgent victories and indecisive conflict outcomes that tend to be unstable, and they yield important implications for future studies of conflict duration and termination.

Finally, in chapter 8 I provide an overview of the main results of this dissertation, discuss their implications, and conclude by offering suggestions for future research.

# Chapter 2

# Previous Research

Consistent with the overall approach of my dissertation, in this chapter I review the literature on three types of dependent variables: insurgent cohesion and fragmentation, counterinsurgent mobilization in civilian communities, and conflict duration and outcome. In every section, I will first review general approaches to explain the relevant *explanandum* before turning to studies that have specifically investigated civil war violence as a causal factor.

## 2.1 Previous Research on Insurgent Cohesion and Fragmentation

A small but growing body of literature has been devoted to the puzzling variations observed in insurgent internal control, and more specifically to variations in the cohesiveness of insurgent movements, groups, and organizations. This emerging literature can be roughly divided into studies that focus on determinants of insurgent cohesiveness that are exogenous to wartime dynamics and those that study determinants endogenous to it.

Studies in the first group are predominantly concerned with determinants of insurgent internal control that are theorized to be largely exogenous to conflict dynamics, such as the primary resource endowments or the initial social composition of armed groups.

Weinstein (2007)[1] is a prototypical example of the 'exogenous' approach. He argues that the type of resources available to leaders of nascent insurgent groups will determine the social makeup of the organization in terms of the type and 'quality' of recruits, and the internal and external institutions of governance established by armed groups. He creates two stylized scenarios, one in which initial material endowments are abundant, and one in which they are scarce: In the former environment, the mobilization approach of insurgent leaders will be based on short-term, material rewards, a strategy that promises rapid mobilization success, which Weinstein argues is critical in the competitive environment of emerging insurgencies. However, a mobilization based on pecuniary rewards will also primarily attract materially oriented 'consumers' that are difficult to control. In contrast, where economic endowments are scarce, leaders have to appeal to shared identities and ideologies to motivate participation, a strategy that is costly in terms of time, but that will lead to more cohesive, and more disciplined, armed groups in the long run. The problem with this argument is that it almost completely neglects the role of armed groups' institutions in transforming the recruits' norms and beliefs, and their levels of commitment and discipline.[2]

Staniland (2010), while acknowledging the relevance of armed groups' institutions in forging cohesion, identifies the intial embedding of insurgent organizations – especially the core leadership – into strongly exclusive but supralocal, preexisting social 'bonding' networks and the access to external material support as the most important determinants of insurgent cohesion.[3] Focusing exclusively on insurgent groups operating under conditions shaped by a very strong state with extensive repressive capacities, he argues that it is the interaction between these two factors that best explains variation in insurgent internal control. Specifically, he argues, first, that the structure of the social networks upon which an insurgent organization is built determines its organizational

[1]Note that Weinstein's theory, while carrying implications for the cohesiveness of armed groups, primarily aims to explain why some rebel groups behave highly abusive towards the civilian population while others are characterized by restraint.

[2]For a more extensive critique see Gutiérrez Sanín (2008) and Wood (2012).

[3]Focusing both on cohesion and fragmentation, his *explanandum* is broadly defined as "the nature and level of internal control within a group. Generally speaking (...) patterns of unity (few splits or feuds, peaceful leadership transitions, factions under central control), of fragmentation (many splits and violent feuds; high factional autonomy), or of some intermediate trajectory" (Staniland, 2010, 38).

form, and that a broad integration of insurgent institutions into tight, exclusive, pre-existing social networks trump popular support, public goods provision, ethnicity, and ideology in providing a stable base for insurgent institutions that sustain high levels of insurgent cohesion throughout the process of mass expansion. Second, – and interestingly, in sharp contrast to scholars such as Weinstein (2010) –, Staniland holds that material support from third parties such as states or diasporas helps to *promote* internal control by facilitating the maintenance of a robust organization even in the face of severe state repression. He finds support for his theory based on a comparative analysis of 26 insurgent organizations across the globe.

While both Staniland (2010) and Weinstein (2007) are concerned with insurgent control on the organizational level, others have focused on the cohesion and effectiveness of small fighting units and companies. Shils and Janowitz (1948) study the sources of cohesiveness of small groups in the 'Wehrmacht' during World War II. They argue that it was the structural integrity and social homogeneity (in terms of nationality and language) of the squad or platoon, rather than individual political or ideological attitudes and values, that were the most important predictors of individual-level commitment to keep up the fight (Shils and Janowitz, 1948, 284f.). Costa and Kahn (2008) study the effects of social diversity on the cohesion and desertion rates of small fighting units in the American Civil War. They find that desertion rates were dramatically decreased when soldiers fought in groups that were homogeneous in terms of the age, origin, and occupation of their fellow fighters, compared to soldiers that fought in more socially diverse companies. A more nuanced finding is presented by Bearman (1991), who studies the determinants of desertion in the Confederate army during the Civil War. The Confederate army systematically recruited soldiers into socially homogeneous units, i.e., units composed of soldiers from the same county. Over time, however, local homogeneity eroded in some companies. Bearman finds that socially homogeneous units, while experiencing lower desertions at the beginning of the war, showed the *highest* desertion rates at later stages, when support for the war generally eroded, while individual-level characteristics account for very little variation. He interprets this relationship as evidence for an identity-based

explanation of desertion: "Men who were still tied to civil society and who, by virtue of those ties, were able to resist a military identity, were more likely to view themselves as members of civil society and consequently to desert. Here we see the process of identity formation, where men still bound to civil society used these ties to propel them out of service" (Bearman, 1991, 338).

While Bearman (1991) connects wartime processes with exogenous factors to explain combatant desertions, other studies have focused explicitly on dynamics that are distinctively endogenous to wartime dynamics to explain insurgent cohesion and fragmentation. Woldemariam (2011), for instance, argues that levels of rebel cohesion and organizational stability are primarily driven by the dynamics of territorial gains and losses. Both territorial gains and territorial losses, he argues, alter the incentives of rebel elites to cooperate with each other in negative ways, while military stalemates (in terms of territorial control) are the most stable sources of organizational unity. He finds support for his argument based on qualitative and quantitative evidence on rebel factionalism and fragmentation in Ethiopia's civil wars in particular and Middle Eastern rebel groups more generally.

Likewise concentrating on the endogenous dynamics of wartime processes, Kenny (2010) first of all argues for a careful analytical distinction between structural integrity (with fragmentation as its opposite) and cohesion (with disintegration as its opposite), concepts that are often used synonymously in the literature on insurgent factionalism. Structural integrity and fragmentation refer to the extent to which an organization persists as an intact entity, while cohesion and disintegration refer to the extent to which a concerted effort toward the organizational goals as defined by the leadership can be established and retained (Kenny, 2010, 534). Kenny (2010) then stresses the role of organizational socialization and practices that inspire a sense of shared burden in determining levels of cohesion, while identifying the strategic interactions between insurgents and state forces to be of crucial importance in explaining the degree of structural integrity. Based on a comparative analysis of the Irish Republican Army and the Karen National Union, he also finds that structural integrity and cohesion do not necessar-

ily covary within insurgent organizations, thereby supporting his claim that insurgent fragmentation and disintegration should be analyzed as distinct processes.

Whereas Kenny (2010, 2011) focuses on experiences that instill a sense of shared burden and sacrifice, Bevan (2007) and Cohen (2010) both develop theories on the role of violence perpetration on levels of individual commitment and group cohesion. Both authors argue that collective experiences in *perpetrating* violence can positively affect levels of individual commitment and insurgent cohesion, especially when armed groups rely on forced recruitment instead of voluntary modes of mobilization. Specifically focusing on sexual violence and gang rape in particular, Cohen (2010, 23) argues that "gang rape allows armed groups who forcibly recruit their fighters to create and to maintain a fighting group in the most basic of senses: to reduce attempts at desertions or mutinies through a sense of collective responsibility, to produce social bonds where they are lacking, and, most importantly, to increase trust amongst people who may otherwise be predisposed to fighting each other". Cohen supports her argument based on evidence from Sierra Leone and crossnational data. In his qualitative study of the Lord's Resistance Army (LRA) in Uganda, Bevan (2007) argues that the LRA forced its abducted recruits into civilian abuse in their home communities to suppress individual tendencies for defection. Along with spiritual indoctrination, he argues that these enforced atrocities served to reduce the opportunity costs of group membership for abducted recruits and hence, the propensity for defection.

Another way in which endogenous dynamics can trigger insurgent fragmentation are ruptures between moderate and extreme factions within armed organizations that emerge or spin out of control during peace negotiations with the state. One particular strain of literature has accordingly focused on how peace processes can bring about – and be threatened by – armed actors (often referred to as 'spoilers') that violently oppose peace negotiations. One strain of research has indeed focused exclusively on insurgent fragmentation in the context of peace processes. (e.g., Stedman, 1997; Kydd and Walter, 2003).[4]

[4]As Stedman (1997, 7) notes "Spoilers exist only when there is a peace process to undermine, that is, after at least two warring parties have committed themselves publicly to a pact or have signed a

When it comes to the effect of state repression and various forms of state violence on insurgent cohesion and fragmentation in particular, the evidence is still scarce and highly mixed. Some studies have theoretically suggested that indiscriminate state repression tends to strengthen the collective identity and cohesion of the group under pressure (e.g., Khawaja, 1993, 66). However, to date only a few studies have in fact systematically examined the influence of state repression and state violence on insurgent cohesion and fragmentation.[5] Among the exceptions are McLauchlin and Pearlman (2012), who focus on the effect of state repression on ethnic and nationalist movements.[6] They argue that repression amplifies tendencies for cooperation or conflict prevalent in a movement prior the onset of repression. More specifically, McLauchlin and Pearlman (2012) hold that whether 'repression shocks' will result in greater unity or increased fragmentation depends on how satisfied subgroups of the movement are with the institutional arrangements that distribute power within the movement. They illustrate their argument with the empirical cases of the Kurdish movement in Iraq and the Palestinian national movement in the West Bank and Gaza strip.[7] Asal, Brown and Dalton (2012) more generally study the determinants of splits among ethnopolitical organizations in the Middle East.

comprehensive peace agreement."

[5]Khawaja (1993) for instance focuses on popular collective action as the dependent variable (rather than insurgent cohesion or related dimensions) in his study of the effects of repression in the Palestinian West Bank.

[6]Staniland (2012) and Kalyvas (2008*b*) study the related subject of ethnic defection, defined as "a process whereby individuals join organizations explicitly opposed to the national aspirations of the ethnic group with which they identify and end up fighting against their coethnics" (Kalyvas, 2008*b*, 1045). Kalyvas (2008*b*) argues that ethnic defection is driven by two types of processes that are conspicuously endogenous to wartime processes: incentives and constraints on one hand and revenge on the other. Specifically he hypothesizes that ethnic defection is best predicted by the extent of territorial control exercised by the state incumbent and the level of prior insurgent violence, rather than prewar cleavages of mere geography. He finds support for his theoretical argument in an empirical study of microlevel variation in armed collaboration with German occupation forces across villages and towns in the Greek civil war. Inspired by the empirical case of the defection of Sunni nationalist insurgents to the the United States and government of Iraq, Staniland (2012) develops a theory of ethnic defection that focuses on the internal dynamics of insurgent groups. He argues that if rivalries within insurgent movements are lethal but incomplete, they are likely to generate losers that, threatened by their in-group rivals, will defect to the state in search of protection. He then qualitatively assesses the validity of his theoretical assumptions based on an in-depth examination of 'fratricidal flipping' between armed groups in the region of Kashmir and in Sri Lanka. Also related but distinct from research on armed group cohesion and fragmentation are cross-national studies that focus on intra-ethnic conflict (e.g., Warren and Troy, 2011).

[7]McLauchlin and Pearlman (2012) focus more on the intensity of repressive shocks than on the particular types of state violence, and both repression campaigns they analyze "entailed humanitarian disaster, as well as major disruption of the movement's institutions, including semiautonomous governance structures, party branch offices, affiliated armed forces, and foreign financing" (McLauchlin and Pearlman, 2012, 46).

In an analysis of the influence of both organizational factors and contextual ones, they find that both factional leadership and the active use of violence promote organizational splintering, while exposure of organizations to state repression has no significant effect on the probability of fragmentation.

Another branch of research gives insights into the effects of state violence against insurgent leaders. Both Jordan (2009) and Lawrence (2010) study the effects of state repression directly targeted against leaders of nationalist movements and terrorist groups. Jordan (2009) empirically analyzes, first, the effects of leadership decapitation against 96 terrorist organizations from 1945 to 2004 and second, in a more descriptive analysis, the consequences of targeted assassinations against leaders of the ETA, the FARC, and Hamas. She finds that leadership assassination has often a *negative* effect on the probability that terrorist organizations will decay, especially in the case of large, old, religiously oriented, and separatist organizations. Lawrence (2010), empirically concentrating on the shift from nonviolent to violent organized resistance against the French Empire – colonial Morocco in particular –, argues that state repression was crucial in triggering nationalist violence through the creation of leadership vacuums, which in turn provoked fragmentation, internal rivalries, and the adoption of violent means by competing nationalist actors.[8]

### 2.1.1 Critique

When it comes to the particular question of the effect of state violence on insurgent fragmentation, the most comprehensive theoretical insights so far are provided by Kenny (2010) and Staniland (2010), both of which I have already briefly reviewed above. For the quite specific conditions of rebellions in states that have very strong coercive capabilities that can be applied swiftly across the entire state territory – "where a government has

[8]"When and where nationalist movements fractured, nationalist actors had incentives to adopt violent strategies to compete with one another: they used violence to demonstrate their commitment to the nationalist cause, consolidate control over particular localities, and eliminate rivals" (Lawrence, 2010, 90). Note that Lawrence aims to contribute to explanations of civil war onset by studying the *eruption* of nationalist violence against colonial rule, hence strictly speaking not falling into the category of studies that focus on wartime dynamics.

large-scale coercive forces and the will to rapidly use them against nascent insurgent challenges" (Staniland, 2010, 76) – Staniland argues that only closely knit, exclusive but supralocal, pre-existing 'bonding' networks, together with substantial amounts of external material support, can provide solid prerequisites for institutions that sustain insurgent cohesiveness in the face of large-scale recruitment and severe state repression.

Yet in many, if not most, civil wars, state power is far from pervasive and ubiquitous, and has been so long prior to the outbreak of armed conflict, so that Staniland's scope conditions are not met. Indeed, insurgent groups typically emerge in local pockets where state institutions are exceedingly weak at least in some regions (e.g., Goodwin, 2001). The Shining Path insurgency, for instance, which will be discussed in detail in chapter 6, started to mobilize, consolidate, and indoctrinate its core network of followers long before armed struggle was launched, and years before government officials in the country's capital would even realize that there was indeed a revolutionary threat emerging in the remote highland provinces. While I agree with Staniland that the social base of insurgent institutions is of crucial importance, I do not share his theory's assumption that such networks need to be pre-existing and of an exclusive 'bonding' type (such as familial ties).

Instead, I assume that such networks are at the very core of initial insurgent mobilization and institution-building, rather than prior to them (see also Wood, 2003). Indeed, it is often difficult to determine what 'pre-existing' means when it comes to particular conflicts, especially protracted ones. For instance, while the core membership of the Provisional Irish Republican Army (PIRA) belonged to a closely knit network of 'old' Republican families (Crouch, 2010, 95; Kenny, 2010, 551; Staniland, 2010, 138, 146), these loyalties had themselves been forged during earlier periods of occupation, repression, and civil war, and were thus not exogenous to the whole conflict.

Another problem with the theory of pre-existing networks is its proximity to static explanations. Similar to Weinstein's (2007) theory on the lasting influence of initial resource endowments, in Staniland's theory the initial social base of core leaders (together with ongoing material support from external actors) determines insurgent cohesion in the

long run, theoretically foreclosing institutional learning and adaption.

If Staniland's (2010) theory is too static, Kenny's (2010) approach remains too vague. While he emphasizes the relevance of organizational socialization for insurgent cohesion and the importance of strategic interactions with state forces for insurgent structural integrity, his main contribution remains the conceptual clarification and analytical decoupling of structural integrity and fragmentation on one side and insurgent cohesion and disintegration on the other. While this is a significant and valuable contribution, it does not comprehensively clarify the relationship between state violence and insurgent fragmentation.

To sum up, while the diversity in conceptual definitions and scope conditions makes an integration of the reported findings difficult, the literature on insurgent cohesion and fragmentation has made significant progress over the past years. The studies of Kenny (2010) and Staniland (2010) in particular have delivered important insights. However, while Kenny (2010) acknowledges the relevance of state-insurgent interactions, his theory remains quite vague about the relationship between repression, cohesion, and fragmentation. Staniland (2010), on the other hand, restricts his scope conditions to cases where a state's capability to project coercive power is high and state repression pervasive. This leaves out many contexts where insurgent groups operate unobstructed for significant periods of time and manage to establish themselves as de-facto rulers in areas under their territorial control, which – as I will argue below – often leaves sufficient space for the establishment of social ties and institutions whose viability does not depend on exogenous 'bonding' networks.[9] Therefore, the questions remain why insurgent cohesion can be forged and sustained in some cases but not in others, and how state repression affects the capability of insurgent organizations to maintain their structural integrity. These are the questions I turn to in chapter 5.

[9]Note that Staniland explicitly acknowlweges this himself: "It thus seems reasonable to suggest that insurgents operating in a weak/apathetic-state context will be better able to rely on *endogenous* processes of indoctrination, brokering, and coalition-building as they construct organizations. In 'liberated zones' they will be free of interference and able to consciously and intentionally focus on trying to forge cohesion through socialization and training. Similarly, if they are able to mobilize during a power vacuum amidst state failure they will have the opportunity to seize and govern territory, create and bolster institutions free of government repression, and broker new alliances between previously disparate social and economic blocs" (Staniland, 2010, 73; emphasis in original).

## 2.2 Previous Research on Counterinsurgent Mobilization

While the literature on political violence has steadily increased over the past decades, surprisingly little has been written to improve the theoretical understanding of 'counter-revolutionary' movements (but see for instance Lichbach, 1995, 256ff; Tilly, 1963). Recent research on structures of rebel governance in civil wars has illuminated important aspects of wartime civilian agency by theorizing patterns of civilian-insurgent relations and systems of order established in areas governed by rebel groups (e.g., Arjona, 2009*b*; Beardsley and McQuinn, 2009; Mampilly, 2011; Weinstein, 2007; Zürrer, 2013). Other studies have focused on the determinants and the effects of 'ethnic defection', at times likewise associated with counterinsurgent groups (Kalyvas, 2008*b*; Lyall, 2010*a*; Staniland, 2012).

Most of the existing comparative studies that have explicitly focused on the determinants of counterinsurgent mobilization have either adopted a top-down perspective focusing on states' incentives to create pro-government militias inside and outside of war (Carey, Mitchell and Lowe, 2009; Carey and Mitchell, 2011; Eck, 2012)[10] or focused on the determinants of individuals' decisions to join counter- (and pro-) insurgent armed groups (Mvukiyehe, Samii and Taylor, 2006; Gutiérrez Sanín, 2008; Humphreys and Weinstein, 2008; Arjona and Kalyvas, 2009; Oppenheim, Steele, Vargas and Weintraub, 2012).[11]

The primary goal of studies that have focused on the *individual-level determinants* of participation in counterinsurgent groups has been to address the question of what distinguishes combatants in militias and paramilitary groups as opposed to insurgent ones. Humphreys and Weinstein (2008) challenge standard accounts of individual participation in civil wars that posit fundamental differences between the motivations of individuals who fight against or in defense of the state. In their survey of ex- and noncombatants in Sierra Leone, they find that poverty, a lack of access to education, and political alien-

[10] On the state-paramilitary alliances and electoral politics, see Acemoglu, Robinson and Santos (2009).

[11] Related is the study of Kalyvas (2008*a*) on recruitment and armed collaboration in occupied Greece (1941-44).

ation predict participation in both rebellion *and* counterrebellion, thus casting doubt on the notion that the logic of participation in pro- or counterinsurgent groups differs fundamentally on the individual level.

In contrast, Gutiérrez Sanín (2008) finds in his evaluation of judicial proceedings from which he constructs a database on 99 FARC members and 268 paramilitaries in Colombia that paramilitary members were much less likely to be female of of peasant origin, and they were instead generally better educated than members of the FARC. He also finds that the membership of the paramilitaries differs from that of the FARC in that the former includes a substantial number of ex-members of the Colombian Army as well as common delinquents.

Interestingly, the study of Arjona and Kalyvas (2009) partially resonates with both the findings of Humphreys and Weinstein (2008) and Gutiérrez Sanín (2008): In their survey of excombatants in Colombia, they find that while individuals who joined counterinsurgent organizations are more likely to be motivated by material incentives, one of the most important predictors of participation in both pro- and counterinsurgent is territorial control by the respective organizations. This finding points to the relevance of endogenous dynamics, rather than fixed preferences of individuals, and it also resonates with Kalyvas (2008*a*), who finds that territorial control and exposure to prior insurgent violence determined the success of German occupiers in Greece to recruit collaborationists during the Second World War.

Another group of studies has focused on the *incentives of state agents* to rely on paramilitaries and militias – non-state groups that are not part of the official apparatus of the state. Carey, Colaresi and Mitchell (2012) argue that governments are most likely to resort to armed groups that are not part of the official security apparatus when they can benefit from efficiency gains and reduced liability, and that these conditions apply when regimes have to respond to immediate regime threats, when states are infrastructurally weak and when they are likely to be held accountable to their actions by domestic and international audiences. They find support for this argument based on an analysis of their novel global dataset on pro-government armed groups; specifically, their results suggest

that poorer countries and countries with mountainous terrain, that exhibit the greatest distance to democracy and that are dependent on on aid from democratic donors are by far the most likely ones to outsource violence to non-state armed groups. One of the key implications of the study of Carey, Colaresi and Mitchell (2012) is that autocratic regimes should be less likely to be concerned about liability issues, and that the efficiency gains from employing inofficial non-state armed groups should be trumped by concerns about a potential loss of control. From this perspective, it is puzzling that autocratic regimes are regularly observed to rely on militias, a puzzle that is addressed by Eck (2012) for the case of authoritarian states that face armed opposition groups. Eck (2012) argues that authoritarian states are more likely to delegate violence to militias to fight armed resistance when they engage in purges of the military, as purges tend to undermine the capacity of the military in general and to gather local intelligence in particular. Relying on subnational data on the regions of Myanmar during the period 1948-2010, Eck (2012) finds that militia activity is more likely in areas affected by armed conflict after military purges.

A third group of studies has focused on *community-based mobilization* of counterinsurgent groups.[12] Jentzsch (2013) for instance seeks to explain the puzzle of why, given that large segments of the population is typically exposed to high levels of insecurity during civil wars, the formation and diffusion of counterinsurgent groups varies considerably in most conflicts. Based on fieldwork in Mozambique, which was affected by internal armed conflict from 1976 to 1992, she advances an argument that centers on the capability of militia leaders to draw on cultural resources that resonate with existing cultural repertoires of local communities and thus enable leaders to activate social networks and to forge a collective belief in agency.

A similar puzzle is addressed by Blocq (2012), who investigates the question of why some communities create armed self-defense groups while others that are exposed to similar levels of insurgent violence do not. Based on interviews with local authorities

[12]While this literature review is largely concerned with the political science literature, there are also excellent accounts of community-based counterinsurgent mobilization offered by historians; see for instance Fumerton (2002) and La Serna (2012) for the case of Peru.

in South Sudan, he finds that the most convincing explanatory power lies in the interpretation of insurgent violence by tribal leaders. Specifically, he finds that local leaders in communities with organized self-defense groups were convinced that insurgent violence was local in the sense of originating from neighboring tribes. Blocq (2012) argues that this finding supports a theoretical explanation of counterinsurgent mobilization that points to the relevance of both the perceived manageability and the local salience of violence, rather than explanations that emphasize opportunity-based mechanisms. Forney (2012) focuses on the problem of adverse selection in militia recruitment, a problem famously described in detail by Weinstein (2007) for insurgent groups. In particular, Forney (2012) investigates the role of local social networks in the screening of incoming militia recruits, and the implications of these screening mechanisms for the quality of militia-civilian relations, including civilian abuse. Based on qualitative evidence from interviews with over 170 former militia members, wartime community leaders, and local civilians in Sierra Leone, Forney (2012) finds that when community leaders had access to social networks of reciprocity, they were able to effectively screen militia members and recruit those volunteers whose motivations were consistent with the communities they were supposed to protect.

Finally, Lyall (2009, 337f.) argues that civilian resistance towards insurgents is one of the key mechanisms through which indiscriminate state violence decreases insurgent violence. Specifically, he holds that indiscriminate state violence will force insurgents to adapt their strategies not only due to logistical problems induced by state violence, but also in response to civilian pressures that may take the form of armed resistance. However, neither the link between state violence and counterinsurgent collective action nor the link between the latter and insurgent violence is empirically tested in his study on the effect of state-sponsored bombing on subsequent levels of insurgent violence in Chechen villages and towns.

In sum, while the individual incentives' approach fails to explain the emergence of counterinsurgent groups, the state incentives approach cannot account for important variations in counterinsurgent mobilization. Although counterinsurgent movements are

often portrayed as mere 'proxies' of state forces, the degree to which these organizations are initiated, supported, and controlled by the state differs extensively. Community-based approaches correct for these limitations, yet without sufficiently accounting for variation in counterinsurgent mobilization on one side and the role of state violence on the other. Chapter 6 is concerned with the emergence of civil defense organizations based on coordinated civilian agency at the community level.[13] I focus explicitly on variation in types of counterinsurgent collective action, and offer empirical evidence on how community-based counterinsurgent mobilization was shaped by state violence in the Peruvian civil war.

During the Peruvian armed conflict, which was characterized by an initial period of intense and indiscriminate state violence, large segments of the civilian population were organized into counterinsurgent groups, the so-called *rondas campesinas* or *comités de autodefensa* (Degregori, Coronel, del Pino and Starn, 1996). The widespread organization of Peruvian citizens into counterinsurgent groups might seem puzzling from a theoretical perspective, given that the type of state repression that marked the early 1980s in Peru has often been shown to promote support for insurgent groups, through several mechanisms: Indiscriminate state violence may play into the hands of insurgents by triggering moral outrage (Wood, 2003*a*), by fueling dynamics of revenge (e.g., Kalyvas, 2006, 153f.; Wood, 2008, 548, 552), and by strengthening the collective identity of the targeted group (Khawaja, 1993). Therefore, indiscriminate repression is likely to provide the insurgents with appealing frames of mobilization that they can successfully incorporate into their strategies to attract new followers (Wood, 2003, 271f.; Viterna, 2006, 31, 39). Moreover, when state violence is tied to collective attributes, compliance with the perpetrator does not necessarily increase the prospects of being spared – on the contrary, the opposing armed group is provided with the opportunity to attract followers by signaling its capability to protect the population (e.g., Goodwin, 2001; Kalyvas and Kocher, 2007; Humphreys and Weinstein, 2008; Mason and Krane, 1989). Armed groups

[13] On the post-war implications of counterinsurgent recruitment see Bateson (2011), who links vigilantism in postwar Guatemala to wartime dynamics through psychological and institutional channels. In particular, she finds the institutional legacy of the civil patrols in Guatemala to be one of the most important causal links between wartime violence and post-war vigilantism.

may further be able to capitalize on the selective incentive of protection by holding it back from particular individuals or groups, thereby "using one's enemies as one's own enforcers" (Kalyvas 2006, 158).

On the other hand, however, scholars have also argued that indiscriminate state violence, rather than encouraging insurgent support, may be 'effective' in counterinsurgency precisely because this type of violence can undermine civilian support and even trigger civilian resistance *against* the insurgents (Lyall, 2009, 337f.). Particularly where the relative capacity of one actor is very high, and where opposing groups fail to protect the population effectively, generalized repression may actually reduce the capacity of rebel groups to maintain civilian collaboration and noncombatant support, at least in the short term (Kalyvas, 2006, 167f.). Besides directly disrupting the insurgents' networks (Staniland, 2009, 39f.) and physically harming their sources of intelligence and retreat (e.g., Arreguín-Toft, 2005; Downes, 2007*a*), indiscriminate state violence may also harm insurgents indirectly by undermining their reputation for effectiveness and by demonstrating their inability to protect the population (Kalyvas, 2006; Lyall, 2009) – for "whatever excludable private benefits one elite group may provide will rarely if ever be sufficient to offset the risk of violent reprisals at the hands of the rival elite" (Mason and Krane, 1989, 179). Indeed, protection from violence ranks high among the selective incentives individuals are expected to receive by supporting or joining armed groups (e.g., Humphreys and Weinstein, 2008; Kalyvas and Kocher, 2007; Weinstein, 2007). Thus, in the absence of protection, generalized state violence may actually help to turn civilians *against* the insurgents (Lyall, 2009, 337f.), at least in cases when state violence is not entirely random but based on a strategy of 'profiling' (Kocher, Pepinsky, and Kalyvas, 2011, 204). Whether these dynamics actually result in active, coordinated, and armed civilian resistance against rebel groups, however, will depend as much on the capacities of civilian communities to surmount collective action problems as on the specific strategies of state forces and insurgent groups (Arjona, 2009; Lyall, 2009; Kocher, Pepinsky, and Kalyvas, 2011, 204). Thus, the relationship between state violence and counterinsurgent mobilization yet remains to be clarified, both theoretically and empirically.

### 2.2.1 Critique

In short, while the relevance of state violence for subsequent dynamics of war-time mobilization is generally acknowledged, the underlying mechanisms that connect civil war violence to counterinsurgent mobilization are still poorly understood, and both existing theories as well as the empirical evidence remain sparse and conflicting.

Chapter 6 contributes to an emerging research program on the causes and consequences of community-based counterinsurgent mobilization in armed conflict (e.g., Blocq, 2012; Forney, 2012; Jentzsch, 2012) that has started to correct the limitations of state-centered and individual-level approaches, yet has not sufficiently clarified the relationship between state violence and counterinsurgent collective action so far. My study significantly extends these recent contributions in its explicit theoretical focus on the effect of state violence on one particular type of counterinsurgent mobilization and the rigorous empirical analysis thereof.

My study also departs from previous micro-level studies on the effects of indiscriminate state violence (Kocher, Pepinsky and Kalyvas, 2011; Lyall, 2009) in that it focuses explicitly on counterinsurgent collective action as its *explanandum*, and on the the effects of a campaign of violent repression that was not primarily based on indirect strategies such as aerial bombardments but on violence that was – while based on profiling – predominantly direct. I will argue that this type of state violence, marked by collective and direct targeting, is likely to promote autonomous counterinsurgent mobilization as a form of militarized local governance when insurgents are weak in terms of territorial or internal control, a hypothesis that is supported in the subsequent empirical analysis. To my knowledge, this is the first study to systematically identify the effect of indiscriminate state violence on counterinsurgent collective action.

## 2.3 Previous Research on Conflict Duration and Outcome

The theoretical literature on civil war duration and outcome is heavily influenced by bargaining models that – following a longstanding tradition of rationalist approaches to interstate wars – conceptualize civil wars as a bargaining process between rational, unitary and competing actors.[14] According to this theoretical perspective, the primary puzzle is why civil wars occur despite the massive costs inflicted to both parties (e.g., Fearon, 1995). Similarly, with regards to conflict duration and outcomes, bargaining theories have tried to uncover the dynamics that explain why actors are very often not capable of settling conflicts in a timely manner, even though it would clearly be in their interest. In essence, the bargaining tradition has focused on how three problems can help to explain the puzzles of conflict onset, duration, and recurrence (Walter, 2009): information asymmetries, commitment problems, and indivisible stakes. Walter (2002), for instance, argues – based on a credible commitment model –, that negotiated settlements are more likely to be reached and implemented if strong power-sharing pacts and third party guarantees are present: "Adversaries seem unable to credibly promise to abide by the terms of a treaty that offers enormous rewards for cheating and enormous costs for being cheated upon, and they require third-party guarantees to help them through" (Walter, 2002, 161). Wood (2003*b*) shows formally how the perceived indivisibility of stakes and the distributional terms of agreements affect the robustness of negotiated settlements. And Walter (2009) argues that guerrilla wars are likely to be particularly affected by problems of asymmetric information, as insurgent strength and resolve are not as easily observed in these conflicts as in more conventional wars.

Empirically, and independently of the type of theoretical models, quantitative studies of conflict duration have focused on a variety of determinants to explain variation in civil war duration and outcomes. They can be roughly divided into studies that focus on interventions by external actors, such as third party interventions (e.g, Balch-Lindsay,

[14] For a comprehensive overview of this literature see Walter (2009).

Enterline and Joyce, 2008) or security guarantees (Walter, 1997), those that focus on state characteristics, such as the regime type (Getmansky, 2012)[15] or institutionalized ethnic exclusion (Cederman, Gleditsch and Buhaug, 2012; Wucherpfennig, Metternich, Cederman and Gleditsch, 2012), those that focus on the net costs of warfare (Mason, Weingarten and Fett, 1999; Collier, Hoeffler and Söderbom, 2004), or different dimensions of state capacity and insurgent strength (De Rouen and Sobek, 2004; Cunningham, Gleditsch and Salehyan, 2009*a*; Balcells and Kalyvas, 2012).

The majority of attempts to directly and systematically assess the consequences of state violence against civilians on subsequent conflict dynamics has been restricted to either interstate wars (e.g., Downes and Cochran, 2010) or individual intra-state conflicts and a diversity of alternative dependent variables, such as rebel recruitment (Nillesen and Verwimp, 2009), insurgent territorial control (Kocher, Pepinsky and Kalyvas, 2011), or different types of insurgent violence (e.g., Lyall, 2009; Condra and Shapiro, 2012; Schutte, 2012).[16] While I will offer an attempt to integrate processes of insurgent and counterinsurgent mobilization and armed competition into a theory of state violence and conflict duration and termination in chapter 7, I proceed here by reviewing the literature that has explicitly dealt with the impact of state violence on conflict duration and outcome.

Focusing on revolutionary movements during the Cold War (1945-91) Goodwin (2001) studies the question why some states were confronted with massive revolutionary movements while others with very similar socioeconomic conditions were not, and why some of these movements were successful in achieving revolutionary change or at least in mobilizing the masses for decades and others faltered quickly. He argues that it is not just the levels of economic exploitation or inequality that provide the best answers to these questions, but instead identifies indiscriminate state violence as one of the main drivers of armed revolutionary mobilization, as well as its success and persistence. Indiscrimi-

[15]For an analysis that finds no effect for democracy on the outcome or duration of counterinsurgency wars, see Lyall (2010*b*).

[16]Johnston (2012) assesses the effects of *selective* state violence. Specifically, he studies the effect of leadership decapitation in 90 counterinsurgency campaigns. He finds that leadership decapitation increases the probability of conflict termination in general and government victory in particular and that it reduces the intensity of militant violence and the frequency of insurgent attacks.

nate state violence, he argues, dramatically reveals that alternative, non-revolutionary paths of political claim making are foreclosed, thereby radicalizing people and leaving 'no other way out' than to take up arms for self-protection (Goodwin, 2001, 48f.). He further argues that indiscriminate state violence is a particularly strong driver of revolutionary mobilization when states are infrastructurally weak in the sense of not being able to penetrate and control their whole territory, as they will not succeed in violently crushing revolutionary movements altogether, and that patrimonial regimes will be least successful in defeating insurgencies, as in such states divisions within the ranks of counterrevolutionary elites will prevent them from combating revolutionaries effectively (Goodwin, 2001, 49f.).

> "Indiscriminate state violence against mobilized groups and oppositional figures is likely to reinforce the plausibility, justifiability, and (hence) diffusion of the idea that the state needs to be violently 'smashed' and radically reorganized. For reasons of simple self-defense, in fact, people who are literally targeted by the state may arm themselves or join or support groups that have access to arms. Unless state violence is simply overwhelming, then, indiscriminate coercion tends to backfire, producing an ever-growing popular mobilization..." (Goodwin, 2001, 48f.).

With regards to the question of conflict duration and outcome, Goodwin (2001, 217ff.) criticizes the literature on revolutionary movements for often reducing the analytical focus on two possible outcomes: insurgent success and failure. Instead, he distinguishes between three possible outcomes of mass-based insurgencies, insurgencies that successfully manage to acquire state power, those that are defeated, and those that persist for many years or decades without seizing state power, but maintaining significant levels of popular support. Similar to the dynamics he identifies for the early stage of revolutionary mobilization he finds that 'persistent insurgencies' were the result of both indiscriminate state violence and infrastructural weakness. He finds support for his argument based on the method of qualitative comparative analysis of defeated and persistent insurgencies, the latter defined as "revolutionary movements that mobilize an average of at least one thousand armed guerrillas for at least a decade" (Goodwin, 2001, 220) in Latin America and Southeast Asia.

While Goodwin's argument on the causes of persistent insurgencies is convincing, his empirical analysis suffers from several limitations. First of all, the selection of cases is quite problematic, as he focuses exclusively on a number of persistent and defeated guerrilla movements, excluding not only separatist movements but also insurgencies that emerged victorious and those that mobilized less than one thousand armed combatants at their peak (Goodwin, 2001, 220). Thus, he introduces some endogeneity problems by selecting his cases partly on the dependent variables as well as underlying dimensions thereof. Another problem is the choice of method, qualitative comparative analysis, which is not only problematic because it requires the dichotomization of a very dynamic process, but also because is better suited for deterministic hypotheses about necessary and sufficient determinants of given outcomes, rather than probabilistic ones. And finally, while Goodwin's study provides invaluable and comprehensive insights into the dynamics of mobilization and repression in a variety of revolutionary movements between 1945 and 1991, a number of mechanisms through which state violence affects the subsequent dynamics of armed competition and conflict duration and termination remain underexplored in both his theory and empirical analysis.

Lyall and Wilson (2009), by embedding the ineffectiveness of indiscriminate violence argument into a macro-historical context, provide indirect support for the notion that this type of violence tends to undermine rather than spur military effectiveness. They argue that increased mechanization within state militaries after World War I hampered the ability of state agents to filter insurgents from civilians and to deter collaboration among noncombatants, thereby being responsible for the shrinking ability of governments to defeat insurgencies over the past two centuries, an argument that is supported based on a dataset covering the period 1800-2005.[17] Focusing on the same cases and time period as Lyall and Wilson (2009), Schutte (2011) develops a theory according to which geographic predictors of population control – such as the capital's distance to the bulk of the population – will determine the capability of insurgents and incumbents to apply

[17]Others have studied the 'effectiveness' of civilian targeting in conventional interstate wars. Downes (2008) investigates the conditions of the effectiveness of systematic civilian targeting in interstate wars from 1816 to 2003. Controlling for initiation, regime type, and relative capabilities, he finds that civilian victimization exerts a positive effect on the probability of government victory.

violence selectively and hence, influence both conflict severity and outcome.

The problem with both Lyall and Wilson (2009) and Schutte (2011) is that conflict outcomes may be determined by geographic and technological variables through a myriad of mechanisms other than violence (on the former see for instance Kocher, 2004, and on the latter Kalyvas and Balcells, 2012).[18]

A number of studies of individual cases – mostly high-profile guerrilla insurgencies – have also yielded insights into the conditions under which civilian victimization might be related to insurgent survival. Peceny and Stanley (2010), argue that in the case of El Salvador, the indiscriminate killing of tens of thousands of noncombatants by the armed forces in the early stages of the conflict laid the ground for a sustained insurgency by alienating large segments of the population and creating longterm social support for the insurgents – loyalties that could not be 'turned' by later adjustments in counterinsurgent strategies, a conclusion that resonates with both Goodwin (2001) and Wood (2003). However, other qualitative studies reach different conclusions. Examining the cases of France in Algeria, Israel in Lebanon, and the US in Vietnam, Merom (2003) holds that the reluctance of democratic societies to escalate the level of brutality accounts for their poor performance in winning 'small wars' despite their military superiority. Drawing on case study evidence from the Second Anglo-Boer War, Downes (2007*a*) argues that indiscriminate violence can be an effective tool in combating insurgencies, provided that the size of the population from which the insurgents draw support and the size of the area they control are sufficiently small, and provided that external sanctuary and supplies are not available.

Distinguishing between military and political effectiveness, Arreguín-Toft argues that in asymmetric conflicts indiscriminate state violence might be effective as a counter-guerrilla strategy in the short term (Arreguín-Toft, 2001, 109), but that 'barbarism' tends to backfire in the longer run (Arreguín-Toft, 2003).[19] Based on a descriptive

[18]Note that both Lyall and Wilson (2009) and Schutte (2011) focus exclusively on irregular civil wars.

[19]Arreguín-Toft (2001) focuses on the military strategy of 'barbarism', defined as "the systematic violation of the laws of war in pursuit of a military or political objective. Although this definition includes the use of prohibited weapons such as chemical and biological agents, its most important element is depredations against noncombatants (viz., rape, murder, and torture)" (Arreguín-Toft, 2001, 101). Defined like this, 'barbarism' "also includes the use of weapons which are, by their nature,

statistical analysis of asymmetric wars between 1800 and 1998 and the case study of the US intervention in Vietnam, he holds that "barbarism works as a COIN strategy because by attacking either or both of the essential elements of a GWS [guerrilla warfare strategy] – sanctuary and social assistance – it destroys an adversary's capacity to fight" (Arreguín-Toft, 2001, 109), but that "even a cursory review of postwar histories reveals that at best barbarism can be effective only as a military strategy: If the desired objective is long-term political control, barbarism invariably backfires" (Arreguín-Toft, 2001, 122f.).[20] The main problem in his empirical analysis is that it relies exclusively on bivariate correlation tests and that inferential threats, i.e., potential determinants of both strategies and war outcomes, are completely ignored.

### 2.3.1 Critique

While the effect of indiscriminate state violence has only rarely been addressed in previous studies of conflict duration and termination, the few studies that directly assess this question rely on individual case studies or data and methodological techniques that do not account for the fact that the determinants of civil war violence are rarely, if ever, independent from the determinants of civil war duration and outcome (e.g., Arreguín-Toft, 2001; Goodwin, 2001). Recent 'macro-comparative' studies have addressed the effects of indiscriminate state violence by relying on exogenous determinants of state violence, thereby (at least partially) avoiding problems of selection bias and endogeneity (Lyall and Wilson, 2009; Schutte, 2011). However, these studies do not directly test the effect of state violence, instead focusing on the alleged (yet quite static) determinants of

indiscriminate in their destructive effects" (Arreguín-Toft, 2003, 6), but it excludes massacres that are not part of a broader policy.

[20] Arreguín-Toft (2003) holds that while governments suffer from practices that are publicly regarded as illegitimate, 'weak actors' (such as insurgents) do not encounter the same accountability problems. Based on case studies and descriptive statistics of the military utility of civilian targeting in asymmetric colonial and interstate wars since 1816, he finds that while strong actors tend to loose when they resort to civilian victimization, 'barbarism' is more likely to 'pay off' for weaker actors, at least in the short run (Arreguín-Toft, 2003). Wood and Kathman (2013) study the effect of *insurgent* one-sided violence on conflict duration and outcome. Using monthly data on violence in African civil wars between 1989 and 2010, they find that the probability of a negotiated settlement is highest when insurgents engage in a moderate level of one-sided violence, but lower at very high levels, thus indicating a curvilinear effect of one-sided violence perpetrated by insurgent groups.

indiscriminate state violence, leaving room for several competing mechanisms, some of which might have little to do with state violence.

Apart from a few notable exceptions (Cunningham, Gleditsch and Salehyan, 2009*a*; Wucherpfennig et al., 2012; Cederman, Gleditsch and Buhaug, 2012), most studies of civil war duration and outcome also fail to distinguish between different rebel organizations within individual conflicts, instead subsuming all rebel organizations into one single amalgam. This is hardly an adequate choice, as it forecloses the possibility to include insurgent characteristics and insurgent strategies in the equation. This is a major shortcoming of many studies, given that the causes and consequences of state violence will rarely, if ever, be independent of insurgent actions.

Another shortcoming of the existing literature is the lack of theoretical integration across different levels of analysis on one side and the narrow focus on single mechanisms (such as insurgent recruitment) to make predictions about conflict duration and outcome on the other. More and more microlevel studies are produced that demonstrate that the effects of indiscriminate state violence on subsequent conflict processes do not point neatly in one single direction, and that for instance the capacity of insurgents to mobilize followers or to establish and maintain territorial control might be affected differently than their capacity for offensive violence (Nillesen and Verwimp, 2009; Lyall, 2009; Kocher, Pepinsky and Kalyvas, 2011). In short, we know little about how these microlevel mechanisms interact to produce pathways through which state violence affects the longevity of insurgent organizations and conflict outcomes.

In chapter 7 I offer a theoretical framework on the effects of indiscriminate state violence on subsequent processes of conflict termination and outcome. I focus on three pathways, each associated with several underlying mechanisms through which state violence affects processes of conflict termination and outcome. By integrating microlevel mechanisms and macrolevel implications, I follow scholars such as Cederman, Gleditsch and Buhaug (2012) and Kalyvas (2012) in an attempt to bridge the gap between subnational and crossnational theorizing that characterizes much of current theoretical and empirical work on political violence.

## 2.4 Summary

In short, while the importance of state violence for dynamics of wartime mobilization is widely recognized, the underlying mechanisms that connect civil war violence to pro- and counterinsurgent mobilization, insurgent fragmentation, and processes of conflict duration and termination are still poorly understood, and the empirical evidence remains largely inconclusive. Recent findings on the effects of civilian victimization are difficult to reconcile, as they are based on differing research methods and data collected from diverse settings, and as they focus on a variety of dependent variables. There is thus a clear need to theorize and analyze the relationship between civil war violence and distinct forms of armed competition, mobilization, and institutional change more carefully. How state repression affects different types of collective action, and how distinct forms of wartime mobilization and governance relate to each other still needs to be scrutinized in greater detail, both theoretically and empirically. In the next chapter, I will proceed by developing a theoretical framework that allows me to integrate various dynamics associated with indiscriminate state violence across multiple levels of analysis.

# Chapter 3

# Theoretical Framework

Research on wartime collective action has illuminated how state violence affects insurgent mobilization, but has provided little insight so far into how these processes relate to the dynamics of governance, mobilization, and defection both within insurgent organizations and at the level of civilian communities. Even less is known about the macrocomparative implications of such micro- and meso-level processes. I seek to address these gaps by theoretically clarifying the relationship between state violence and defection within insurgent organizations on the one hand and counterinsurgent collective action at the community level on the other, and by specifying the implications of the theorized mechanisms for conflict processes at the macro level. I thus depart from the majority of previous conflict studies in explicitly integrating multiple levels of analysis, and in deviating from the standard assumption that conflict dynamics are exclusively driven by two types of unitary actors – rebel groups and the state.

In what follows, I first introduce and define the concepts that constitute the foundation for the ensuing arguments. I then introduce my theoretical argument on the consequences of indiscriminate state violence for insurgent cohesion and defection that integrates mechanisms at the individual, group, and organizational level before shifting the focus to the impact of state violence on counterinsurgent collective action at the community level. These dynamics are then linked to the macro level by deriving their implications for conflict duration and termination. The core arguments will subsequently

be further elaborated and empirically tested in subsequent chapters.

## 3.1 Concepts

### 3.1.1 Conflicts, Organizations, and Communities

This dissertation is concerned with dynamics of violence and mobilization in *intra-state armed conflict* or *civil war*, defined as a violent contestation between the government of a state and at least one organized armed group.[1] I will use the terms 'civil war', 'internal war', and 'intra-state armed conflict' synonymously. While the term 'war' is typically reserved in the literature for higher intensity conflicts, I proceed from the assumption that the intensity of a conflict is endogenous to dynamics of violence and that it is thus unnecessary, if not misleading, to *a priori* assume diverging dynamics between high- and low-intensity wars and to distinguish them conceptually. While the type of war or warfare will clearly matter for some of my theoretical arguments, unless otherwise noted my arguments apply to all types of conflicts (i.e., regardless of whether they can be classified as ethnic vs. non-ethnic, irregular vs. non-irregular, etc.).

Macroquantitative conflict studies often rely on overaggregated units of analysis that lump different – and sometimes even competing – insurgent organizations together into one 'conflict' or 'civil war'. Such an approach is particularly misleading if one proceeds from the assumption that insurgent organizations differ with regards to their goals, military strength, composition, constituency, and internal structure. In the meso- and macrolevel analyses (chapters 5 and 7), I thus follow scholars such as Cunningham, Gleditsch and Salehyan (2009*a*) in focusing on conflict *dyads* instead, each composed of one armed opposition organization and the government of the respective country.

[1] Empirically, I am concerned with what the Uppsala Conflict Data Program (UCDP) calls 'state-based' armed conflict, defined as "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year" (see UCDP definitions, (`http://www.pcr.uu.se/research/ucdp/definitions/`, last access July 27, 2013). By the incompatibility being centered on the government and/or territory, it is implied that the armed challenger of the state seeks to change or overthrow the existing regime or to achieve secession or autonomy for a certain part of the state's territory.

I follow the Uppsala Conflict Data Program (UCDP) in defining *armed opposition organizations* as "[a]ny non-governmental formally organised group of people having announced a name for their group and using armed force to influence the outcome of the stated incompatibility" (Uppsala Conflict Data Program).[2]

As Kenny (2010, 535f.) rightly points out, the standard use of the term 'rebel group' as synonymous with 'rebel organization' in the civil war literature is somewhat poriferous, as groups can exist within or 'above' organizations, as well as outside of them. A *group* may be composed of any combination of somehow interacting individuals, while an *organization* is an association of individuals devoted to certain types of activities, with criteria for membership, and some structure and/or authority (Kenny, 2010, 535). I will use the term 'armed opposition organization' interchangeably with 'insurgent organization' and 'rebel organization', regardless of the type of conflict (e.g., ethnic vs. non-ethnic, irregular vs. non-irregular, secessionist vs. revolutionary etc). Likewise, I will refer to 'rebel groups' and 'insurgent groups' as groups that are part of an insurgent organization.[3]

Finally, in the subnational study in chapter 6 I will refer to the civilian *community* as the unit of analysis. As a minimal definition, a community can be defined as a network of individuals who regularly engage in direct contact.[4] Specifically, in the context of my particular study of wartime violence and mobilization in rural Peru, the empirical focus lies on the smallest politico-administrative unit, the '*centro poblado*', which refers to permanent settlements of various sizes and types, such as villages and – to a much lesser extent – towns (Dirección Nacional de Censos y Encuestas, 2004).

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[2]See `http://www.pcr.uu.se/research/ucdp/definitions/` (last access July 27, 2013). The UCDP further specifies: "In the case of several levels of organisation (...) the simple rule is to look for which organisation 'calls the shots'. If the umbrella organisation is only an organisation in the nominal sense, and the individual organisations take their own political decisions and conduct military action on their own, the individual organisations are treated as the warring parties. If the umbrella organisation commands the individual organisations, then it is the relevant unit."

[3]While the terms insurgent group and insurgent organization can be used interchangeably in some contexts (as for instance civilian communities will directly interact with insurgent groups rather than organizations as a whole), in others it is important to distinguish the two, such as when it comes to the distinct effects of state violence on primary and secondary cohesion (see below and chapter 5).

[4]In the words of Petersen: "If 'community' can be reduced to one measurable aspect, it would be a high level of face-to-face contact, which in turn implies relatively small numbers and stability of social relations between members" (Petersen, 2001, 16).

### 3.1.2 Wartime Violence and Types of Targeting

In order to understand how wartime violence affects subsequent processes of mobilization, it is necessary to clarify the dimensions of interest. In this dissertation, when referring to *civil war violence*, I focus on the intentional use of physical violence against civilians (Kalyvas, 2006, 19f.). By intentional and physical violence, I refer to the purposeful infliction of physical harm through the application of force. The term civilians refers to individuals who, at the time of being targeted, are not active members of organized armed groups. This definition includes former members or unarmed part-time members as well as collaborators (Kalyvas, 2006, 19f.).

Civil war violence can be mapped onto several additional dimensions (Wood, 2010, 300ff.): A first distinction can be made between strategic and opportunistic violence. The former is exerted on behalf of the armed group, while the latter is carried out for private reasons. Within the category of strategic violence, a further distinction pertains to whether violence follows a top-down order or not (Wood, 2010).[5] Strategic violence can further be categorized according to its purpose. For instance, violence may be intended to shape the incentives for collaboration (Kalyvas, 2006), to exterminate or displace certain groups (Steele, 2011; Weidmann, 2009), to enforce social rules (Burt, 2007; Degregori, 1998) or to coerce individuals into joining armed organizations (Osanka, 1971; Beber and Blattman, 2013). Another dimension of variation in violence pertains to the form of violence, such as various types of sexual violence (Skjelsbaek, 2001; Wood, 2009; Cohen, 2010), suicide attacks (Kalyvas and Sanchez-Cuenca, 2005), or aerial bombings (Lyall, 2009; Kocher, Pepinsky and Kalyvas, 2011). Finally, violence can be distinguished based on the context of interaction – whether it is inflicted directly or indirectly (Balcells, 2010), that is, whether perpetrators and victims interact 'face-to-face' or no such contact occurs.

The dimension that is most relevant for this dissertation is the *level of targeting*: Kalyvas (2006, 141ff.) distinguishes categorically between *selective* and *indiscriminate*

[5]The line between opportunistic and strategic violence becomes blurred, for instance, if violence that is opportunistic on the individual level is not ordered, but tolerated (or even welcomed and promoted) by leaders out of strategic considerations (e.g., Azam, 2006). Wood (2010,301) classifies violence that is not ordered but tolerated as strategic.

violence: Selective violence is defined as targeting that aims at punishing behavioral non-compliance at the individual level, while indiscriminate targeting is based on collective attributes.[6] Alternatively, the level of targeting can be conceptualized as a continuum where selective violence targeted at individuals marks one end of the continuum and random violence the other (Wood, 2010, 300ff.). Located in between is targeting based on 'profiling', i.e., targeting based on collective attributes, such as geography or ethnicity (Steele, 2009; see also Wood, 2010). If not explicitly specified otherwise, I distinguish between selective, indiscriminate, and random violence. In other words, I use the term 'indiscriminate violence' to refer to collective targeting at various levels. In chapter 6 I will investigate one particular type of indiscriminate violence, namely the combination of direct and collective targeting.

Importantly, in the absence of high-quality information, even violence that is selective by intent is likely to turn out indiscriminate in practice (Kalyvas and Kocher, 2007). Moreover, violence that is selective can be perceived as indiscriminate and vice versa (Kalyvas, 2006). Both of these aspects will be important when it comes to the operationalization of indiscriminate violence.

Finally, violence can be distinguished according to the *perpetrator*. My primary focus rests on the consequences of state violence, that is, violence perpetrated by actors that are part of the official security apparatus of the state or otherwise unambiguously affiliated with the government.

### 3.1.3 Wartime Collective Action and Mobilization

*Collective action* is the common engagement of social actors in activities to demand or provide collective goods, a collective good being defined as something that cannot be produced by individuals alone (Baldassarri, 2009, 393f.). I focus on three particular types of wartime collective action: Insurgent collective action, counterinsurgent collective

[6] Non-compliance here refers to the pro-active support of the rival armed group. If selective violence would be so leniently defined as to include the targeting of civilians who provide only the most basic forms of support for armed groups, the distinction between selective and indiscriminate would become untenable, as civilians are often unable to deny basic support such as water or food to any armed group (see for instance Wood, 2008, 17).

action, and concerted defection within rebel organizations. *Insurgent collective action* refers to both the full- or part-time participation in insurgent organizations as well as the support of the latter through various means, such as the provision of shelter, supplies, and information (e.g., Petersen, 2001; Wood, 2003*a*; Parkinson, 2013). Similarly, by *counterinsurgent collective action* I refer to the establishment, active participation in, or support of groups and organizations that are not part of the official security forces of the state, but are organized in armed resistance against and/or protection from insurgent organizations and groups.

By *concerted defection within insurgent organizations* I mean the coordinated breakaway of insurgent factions from the original organization that constitutes *insurgent fragmentation*, i.e., the split of insurgent organizations into distinct organizations with their own goals, composition, and leadership (Woldemariam, 2011, 35f.; see also Kenny, 2010, 535; see also Staniland, 2010). I thus follow Woldemariam (2011, 36) in reserving the term to a type of collective action that "involves a number of individuals who *coordinate* their efforts with the objective of exiting a rebel organization" (Woldemariam, 2011, 36), explicitly excluding incidences where individuals abandon an organization on their own or even in large numbers without a shared purpose (Kenny, 2010, 535; Woldemariam, 2011, 36).[7]

Finally, *mobilization* is central to all these types of collective action, and can be broadly defined as "the process by which a group acquires collective control over the resources needed for action" (Tilly, 1978, 7). Mobilization thus includes, but is not limited to, the recruitment of active participants as well as the procurement of various levels of support by armed groups and organizations of all types.

Throughout this dissertation, I assume a setting in which insurgent 'first movers'

[7]Indeed, the number of *individual* desertions is not a reliable predictor of insurgent fragmentation (Kenny, 2010). Consider the case of the FARC in Colombia, which from the early 1960s to the 2000s grew from a small group of guerrilla fighters to an army-like organization of 18,000 combatants and about 12,000 urban militia members (Chernick, 2007, 67). While the FARC is faced with a "steady stream of desertions" at the individual level (Gutiérrez Sanín, 2008, 25), it nevertheless remains a "highly cohesive entity, that has not known violent internal purges or clashes between its members. There are very few episodes of factionalism, and dissidents have always failed to attract a non-negligible followership" (Gutiérrez Sanín and Giustozzi, 2010, 845). Note, however, that the FARC too had to deal with dissident groups, one of which was involved in founding the M-19 in 1974 (Chernick, 2007, 79).

have already successfully managed to launch a rebellion and to challenge the state by military means.[8] With regards to counterinsurgent mobilization and concerted defection within insurgent organizations, both the initiation and perpetuation of these types of collective action will be theorized.

### 3.1.4 Insurgent Cohesion, Fragmentation, and Control

By *insurgent internal control*, I refer broadly to the extent to which the leadership exerts control over the factions and individual members of a rebel organization (Cunningham, Gleditsch and Salehyan, 2009*a*).[9] Related and most relevant for my theory is the concept of *insurgent cohesion*, a concept that is used in the literature with reference to various social units (e.g., groups, organizations, movements) and often treated as synonymous or overlapping with insurgent control and/or insurgent fragmentation. Winslow (1999) and Cohen (2010), for instance, focus on cohesion at the level of relatively small fighting groups, Kenny (2010) and Staniland (2010) study cohesion and fragmentation at the level of insurgent organizations, and Bakke, Cunningham and Seymour (2012) analyze fragmentation at the level of movements.[10] And while for instance Staniland (2010, 37ff.)[11] treats the number and severity of splits within rebel organizations as two dimensions of a multi-faceted operational definition of insurgent cohesion, Kenny (2010) argues that the concepts of structural integrity and cohesion should be analytically decoupled.[12]

[8]It is not always specified in the literature whether the collective action model is applied to the launch of rebellions or their advancement (for a critique see Kalyvas and Kocher, 2007, 182); on 'first movers', 'first joiners', and 'late joiners' in wartime mobilization, see Elster (2006).

[9]The theoretical literature on insurgent internal control and cohesion is characterized by a considerable conceptual diversity, with contributions focusing on various levels of analysis – such as the group, squad, organization, or movement – and different dimensions of cohesion and control (e.g., Kenny, 2010; Staniland, 2010; Bakke, Cunningham and Seymour, 2012). Apart from studies that focus directly on insurgent internal control or control as their *explanandum*, insurgent cohesion and internal control have also received attention as independent and intervening variables from scholars that are interested to explain variation in insurgent violence against noncombatants (Weinstein, 2007; Cohen, 2010; Wood, 2009; Wood, 2010; Hoover Green, 2011; Wood, 2012).

[10]Bakke, Cunningham and Seymour (2012) identify three dimensions of fragmentation, namely the number of organizations in a movement, the degree of institutionalization across them, and the power distribution among them (Bakke, Cunningham and Seymour, 2012, 272).

[11]Staniland (2010, 39) focuses on the frequency and intensity of intra-organizational splits and feuds, the autonomy of factions, and the issue over which internal discontent arises.

[12]Kenny defines cohesion as the extent to which members of an organization follow orders and take actions that further the goals of the organization (Kenny, 2010, 537).

As outlined in the previous section, I restrict the term *insurgent fragmentation* to the splintering of insurgent organizations into two or several distinct organizations, thereby not compounding the concept with insurgent cohesion. Another important divide[13] exists between scholars who explicitly distinguish between 'social cohesion' and 'task cohesion' (e.g., MacCoun, Kier and Belkin, 2006; Cohen, 2010, 21),[14] and those who integrate both of these dimensions into one single definition (e.g., Carron and Brawley, 2000). The latter approach is problematic insofar as the relationship between social cohesion on one side and effectiveness on the other remains empirically contested (e.g., MacCoun, Kier and Belkin, 2006, 647; for an overview see Cohen 2010, 21ff.),[15] and because the inclusion of instrumental (or behavioral) dimensions into the definition of cohesiveness induces conceptual overaggregation and, depending on the *explanandum*, endogeneity.

When it comes to the relevant units of reference, Wood (2009, 2010, 2012) introduces the distinction between primary and secondary cohesion from military sociology (Siebold, 2007, 2011) to the study of insurgent organizations: Primary cohesion broadly refers to hierarchical and vertical bonding in small groups, whereas secondary group cohesion refers to the commitment of individuals to higher-level units and the organization as a whole.[16]

Building on these approaches, and deliberately excluding behavioral or instrumental

[13]The disagreements over how cohesiveness in groups and organizations should be defined and measured are not limited to political science or the study of armed groups and state militaries, but persist in other academic fields as well (see for instance Greer, 2012).

[14]'Task cohesion' refers to the extent to which members of a group share the commitment to a common goal, while 'social cohesion' refers to the quality and strength of interpersonal ties between the members of a group or organization (MacCoun, Kier and Belkin, 2006, 647; Cohen 2010, 21).

[15]For instance, while Kenny advances the literature on insurgent internal control by decoupling the concepts of cohesion and structural integrity, and by stressing the importance of shared experiences in his theory, his conceptual and operational definition of cohesion is problematic in that it is very closely related to actual effectiveness (e.g., Kenny, 2010, 547f.). As Kenny (2010, 534) puts it, "*cohesion* refers to the creation and maintenance of cooperative effort toward the attainment of the organization's goals".

[16]With regards to state forces, Siebold (2011) puts it as follows: "Peer or horizontal bonding is among members at the same military hierarchical level (e.g., squad or group members). Leader or vertical bonding is between those at different levels (e.g., between squad or group members and their leaders). Peer and leader bonding within a small group (e.g., a platoon) together compose primary group cohesion. Organizational bonding is between personnel and their next higher organizations (e.g., company and battalion), and institutional bonding is between personnel and their military branch (e.g., the Army). Together, organizational and institutional bonding compose secondary group cohesion. Each type of bonding has been considered to have two aspects: affective (an emotional/reactive side) and instrumental (an action/proactive side)" (Siebold, 2007, 287). 'Bonding' refers to relationships "in which loyalty, duties, and obligations are accepted in exchange for various benefits, rewards, and affection" (Siebold, 2011, 455).

dimensions, by *primary cohesion* I refer to the extent to which horizontal and vertical bonds between group members (i.e., individuals that regularly interact face-to-face) are positively 'loaded' with a sense of collective responsibility and mutual trust, while I restrict the term *secondary cohesion* to the extent to which individuals identify with the armed organization as a whole.[17] Secondary cohesion is thus related to the concept of collective identity, "an individual's cognitive, moral, and emotional connection with a broader community, category, practice, or institution" (Polletta and Jasper, 2001, 285).[18]

### 3.1.5 Socialization and Indoctrination in Armed Groups

Virtually all armed organizations rely on formal and informal institutions to socialize, discipline, and indoctrinate their followers according to the principles, norms, and goals of the organization as defined by the leadership. *Institutions* are generally defined as sets of informal and formal rules and procedures "that structure social interaction by constraining and enabling actors' behavior" (Helmke and Levitsky, 2004, 272).

Institutions for *discipline* provide procedures to reward and punish the (non-) compliance of combatants with specific rules. Institutions for socialization and indoctrination aim to transform combatants' preferences, thereby reducing the need for constant in-group policing (Hoover Green, 2011, 19f.,23f.,37ff.; Wood, 2012, 405ff.) and increasing combatant cohesion (Staniland, 2010, 100f.; Oppenheim et al., 2012). *Socialization* refers to the process "through which recruits gain knowledge of, and learn to function within, the armed group's rules, values, norms, and standard practices" (Hoover Green, 2011, 23). Socialization in state and non-state armed groups, while to a certain extent occurring as a by-product of daily experiences, is typically also purposively promoted by superior and more experienced members through informal institutions, such as initiation

[17]For a similar definition of primary cohesion, see Cohen (2010, 23), for secondary cohesion see Wood (2009, 137; 2010, 313). One could think of a scenario where combatants strongly identify with organizational units that are larger than the primary group, but not the organization as a whole. In the way I use the term, this would not be equivalent to strong secondary cohesion, which requires the identification with the armed organization as a whole.

[18]The sizes of primary groups varies with the structure and strategies of armed organizations and the specific circumstances of combat that determine which individuals will have regular and close personal contact and hence constitute the primary group members.

rituals, and formalized ones, such as boot camps (e.g., Wood, 2008, Wood, 2009; Kenny, 2011).

Institutions for *indoctrination* are "designed to create adherence and commitment to specific, group-sanctioned ideas about the identity, purpose, history and causes of the group, the conflict, or the individual soldier. However, the content of an indoctrination process may not be 'ideological' in the traditional sense (...) but (...) could be professionalism or religious asceticism as easily as Marxism or National Socialism" (Hoover Green, 2011, 23). Again, such institutions may be formal or informal. The Peruvian insurgent organization Shining Path, for instance, relied on formalized education meetings with oral and written presentations of the organization's ideological principles, and also on more informal sessions of criticism and self-criticism to indoctrinate its members (Gorriti, 1999; Weinstein, 2007; Sánchez, 2012). Moreover, Shining Path educated 'the masses' in popular schools (*escuelas populares*) in the areas it controlled; the popular schools were tailored to different strata and age groups, and a particular emphasis was placed on the training and indoctrination of young people as prospective combatants and leaders (Comisión de la Verdad y Reconciliación, 2003*b*). The institutionalization of political education in settings where prospective recruits and potential future leaders can be reached before they formally join the inner circles of armed organizations as combatants is not uncommon; armed organizations in fact often couple efforts for political education with screening and recruitment strategies. Examples are the youth wings affiliated with the Irish Republican Army (Hamill, 2011; Gill and Horgan, 2013) or the North Vietnamese Army (Henderson, 1979, 37) that served to socialized and educate young people in accordance with the norms and principles of the insurgent movement and to attract and screen new recruits. The Maoist-Communist Party of Nepal (CPN-M), too, relied heavily on indoctrination and other forms of political education in the context of mass gatherings, classes, and face-to-face contacts to attract new followers (Eck, 2010). Because institutions for political education and indoctrination are dedicated to the principles and goals of the organization and its leadership as a whole, they are valuable sources of secondary cohesion. Socialization rituals, too, can strengthen secondary co-

hesion, as long as they are framed in terms of the organization's goals, leadership, and principles, rather than individuals or lower-level organizational units (Kenny, 2011).[19]

## 3.2 The Paradox of Insurgent Collective Action

Why and when do individuals decide to engage in high-risk collective action? Much of the literature on insurgent mobilization has invoked the canonical collective action problem formulated by Olson (1971) to address this question. According to the classic collective action problem, rational individuals are difficult to motivate to contribute to the provision of a good if they cannot be excluded from its consumption once the good has been provided (Olson, 1971). Transferred to wartime mobilization, this problem has been referred to as the 'paradox of revolution' (Tullock, 1971) or the 'rebel's dilemma' (Lichbach, 1995): Why, given the risks and costs involved, should individuals ever decide to participate in the violent struggle against the state, given that they could not be excluded from the benefits of a new social order or regime, and given the limited difference an individual can make to contribute to the final outcome?

According to the classical formulation of the collective action problem committed to the standard rational choice perspective, participation in insurgencies is puzzling. The literature on insurgent collective action has accordingly focused on the question of when and how individuals can be motivated to support and join insurgencies, given the often

[19] I depart from Kenny (2011), who defines cohesion as "the creation and maintenance of cooperative effort towards the attainment of the organization's goals" (Kenny, 2011, 1), in that – as outlined above – I do not focus on the instrumental aspect of cohesion. In fact, he argues that "identification with the organization (...) understood as the degree to which the individual defines his self-concept as that of a member of the organization, and hence, the degree to which the satisfaction of organizational goals becomes coeval with the satisfaction of his own goals" determines cohesion, while in my theory, this would be tautological, as Kenny's concept of identification is very similar to the definition of secondary cohesion as used in this dissertation and as outlined above. I strongly agree with Kenny, however, in the assumption that organizational socialization is of crucial importance in determining individuals' identification with the overall organization, and in that I also assume that unit-level and organizational cohesion need not covary. I believe that the mechanisms Kenny (2011) emphasizes – training, burden sharing, and ritual – are powerful sources of primary cohesion, but unless coupled to the organization as a whole, not of secondary cohesion. This is again consistent with Kenny, who argues that in order to engender a strong identification of individuals with the organization "armies should train and deploy units collectively, rather than individually rotating soldiers in and out of units; encourage a high frequency of orchestrated, collective rituals *focused on the organization*; and ensure that there is a perception that the risks and sacrifices of war are fairly *shared across the organization*" (Kenny, 2011, 3, emphasis added). Note that Kenny (2011) focuses on state militaries, not insurgent groups.

considerable risks involved, and given that they will be able to benefit from the rebels' investments – provided they should emerge successful – even in the absence of an active personal contribution (e.g., Tullock, 1971; Popkin, 1979; Lichbach, 1995).[20]

Popkin (1979,1988), for instance, in his study of insurgent collective action in rural Vietnam, emphasizes the strategies of political 'entrepreneurs' to forge new institutions, to coordinate the contributions of individuals, to incorporate cultural themes into their mobilization frames, and to influence the perceived efficacy of individual contributions. Taylor (1988) argues that strong communities – communities characterized by shared beliefs and values, direct and many-sided relations, and generalized reciprocity – facilitate revolutionary collective action by providing shared expectations about the conditions for cooperation and by facilitating the social sanctioning of uncooperative behavior.

In the civil war literature and the social sciences more generally, theories and empirical research on collective action have moved beyond the original Olson'ian approach, both reframing the motivating puzzle as well as developing new solutions for it. The focus no longer resides exclusively on free riding alone, but on the determinants of various types of collective action and its perpetuation, as well as on multiple types of collective goods.[21]

The refinement of the collective action framework has been driven by contributions from several disciplines. Political sociology has illuminated the critical role of

[20] Lichbach (1995, 19ff.) conceptually distinguishes between four types of strategies to overcome the 'rebel's dilemma', based on whether deliberation and coordination takes place between individuals and the extent to which pre-existing structures condition collective action: market, contract, community, and hierarchy. In market solutions, individuals decide independently from pre-existing structures and without deliberating their options with others. Market approaches thus essentially correspond to the classic collective action problem in its standard rational choice formulation. According to this perspective, advanced by scholars such as Tullock (1971), leaders have to influence the cost-benefit calculations by strategies such as the provision of selective benefits or the reduction of the perceived costs of participation. Community approaches proceed from the assumption that pre-existing institutions and relationships condition the choices of individuals. Shared norms, traditions, and "mechanistic patterns of solidarity" (Lichbach, 1995, 20) are examples of structures that may facilitate insurgent collective action in this framework. Contract approaches emphasize changes of 'the rules of the game' through social contracts and reciprocal arrangements that make it rational for individuals to contribute. Finally, hierarchy solutions to the rebel's dilemma emphasize coordinated planning within pre-existing institutions and power relations as well as leadership skills as solutions to the 'rebel's dilemma'. Most scholars of collective dissent and revolutionary movements do not fall exclusively into one of Lichbach's categories. Popkin (1979), for instance, advances the understanding of both contract and hierarchy types of solutions, while Taylor (1988) theorizes both contract and community solutions.

[21] In the words of Medina: "[F]ree riding is now recognized as only one among many possible outcomes of a collective endeavor, so the question is no longer if strategically rational individuals can coordinate at all (they can), but what makes coordination happen, how it is sustained, and what variables affect it" (Medina, 2013, 260).

social contexts and networks, opportunity structures, and mobilization strategies in the emergence and persistence of revolutionary and non-revolutionary collective action (e.g., Tilly, 1978; McAdam, 1986; McAdam, Tarrow and Tilly, 2001). Contributions in institutional economics have shown how institutional settings and types of collective goods affect the propensity and sustainability of collective action (e.g., Ostrom, 2003; Ostrom, 2007). Behavioral economists and evolutionary psychologists have severely challenged the validity of one the key assumptions of standard rational choice theory, namely that selfishness is the main driver of human behavior. The strongest evidence against the assumption of the purely self-interested individual comes from a series of game experiments that clearly support alternative 'drivers' of human behavior, such as other-regarding or 'strong reciprocity' preferences, i.e., the propensity to reward cooperative behavior and punish defectors even if this imposes personal costs (e.g., Fehr, 2002; Gintis, Bowles, Boyd and Fehr, 2003; Fischbacher and Gächter, 2006).

Research on wartime collective action has profited from these developments as well as contributed to it. Most relevant to the subject of this dissertation are studies that directly examine the consequences of state violence on wartime collective action. At least three mechanisms have been identified through which indiscriminate state violence promotes insurgent recruitment and support, hence solving, if not entirely eliminating, the 'rebel's dilemma:' the maximization of security, the pursuit of in-process benefits, and the rectification of state-induced grievances.

Regarding the maximization of security mechanism, Kalyvas and Kocher (2007) argue that participation in insurgent collective action can be assumed to be entirely rational for late joiners, as state violence – even if intended to be selective – is often indiscriminate as a result of a lack of high quality information, thereby exposing civilians to higher risks of being victimized than insurgents. The latter are typically better able to evade state violence, as they are more agile, better informed, and armed – a proposition that is supported based on empirical evidence from the Greek civil war and the Phoenix program in Vietnam. Given high levels of state violence, rebels should thus face no difficulties recruiting followers at all, as rational individuals will reckon that the

risks of nonparticipation outweigh the risks of joining the insurgents (see also Mason and Krane, 1989; Mason, 2004; Regan and Norton, 2005). In short, the 'rebel's dilemma' or 'paradox of revolution' does not apply.[22] While the security maximization approach retains the core assumptions of the standard rational choice framework, both the in-process benefit perspective and the grievance approach relax some of those assumptions. Wood (2003*a*)[23] shows that indiscriminate state violence was one of the main drivers of insurgent collective action in El Salvador, as people acted on behalf of their values and reclaimed their dignity in mobilizing against a state perceived as atrocious. Through its emphasis on other-regarding and process-related benefits of participation in wartime collective action, rather than self-regarding and outcome-oriented ones, Wood's (2001,2003) explanation resonates with research that has credibly challenged the very core of the standard rational choice framework that underlay the original formulation of the collective action problem by showing that individuals have heterogeneous preferences about cooperation, and that some are willing to bear costs to reward cooperation and punish defection (e.g., Fehr, 2002; Gintis et al., 2003). Goodwin (2001) and Cederman, Gleditsch and Buhaug (2012) show that grievances induced by even lesser forms of state repression, such as political exclusion and horizontal inequalities,[24] if successfully incorporated into strategies of mobilization, help to overcome collective action problems by increasing intra-group solidarity and, on the individual level, increase the costs individuals are willing to bear to fight against perceived injustice.[25]

To sum up, research on wartime collective action has moved beyond the emphasis of the traditional free-rider problem in insurgent mobilization, by questioning its pertinence for insurgent mobilization under conditions of pervasive state violence (Kalyvas and Kocher, 2007) and by highlighting how other-regarding and process-oriented preferences, norms of reciprocity, and grievances impact the propensity for collective action through

[22]Note that Kalyvas and Kocher (2007) restrict their argument to 'late joiners' in irregular wars.

[23]For an overview on process-orientation and other-regardingness in the literature on revolutionary collective action, see Lichbach (1995, 120ff.).

[24]On the latter see also Cederman, Gleditsch and Weidmann (2011).

[25]This perspective stands in contrast to those scholars who dismiss grievances as neither necessary nor sufficient to induce and sustain rebellious collective action (Lichbach, 1995: 282ff.; Fearon and Laitin, 2003; Collier and Hoeffler, 2004).

mechanisms that reach beyond mere coercion or the provision of selective benefits, instead highlighting the congruence between individual and collective interest (Wood, 2003*a*; Cederman, Gleditsch and Buhaug, 2012).

While all of these approaches (discussed in more detail in chapter 5 and 7) emphasize a decisively positive effect of indiscriminate state violence on insurgent recruitment and support, still little is known about other forms of wartime collective action and conflict dynamics more generally. In particular, the impact of state violence on cohesion and control within insurgent organizations and on wartime mobilization and governance at the level of civilian communities remains poorly understood. Another major gap resides in the lack of theoretical integration across these different levels. How do insurgent organizations maintain cohesion and internal control in the face of pervasive state violence? How do civilians respond to state violence if no armed actor is capable and willing to protect them? And how do these processes feed back into dynamics of armed competition at the macro level? These are the questions I turn to below.

## 3.3 The Consequences of State Violence for Wartime Collective Action

This dissertation investigates the consequences of indiscriminate state violence for wartime collective action by integrating different levels of analysis. The vast majority of contributions to the civil war literature focuses on either the 'micro' or the 'macro' level, either theorizing the behavior of individuals and groups and evaluating their claims based on subnational or qualitative data, or analyzing processes at the macro level, empirically comparing conflicts and countries.[26] While macro-level approaches typically neglect variation within conflicts, micro-level studies commonly fail to connect individual- and group-level mechanisms to higher-order structures and processes, inducing what Coleman (1986) refers to as the 'micro-to-macro problem'.[27] I follow those scholars of

[26]For overviews and critiques of this division in conflict research, see Cederman and Gleditsch (2009) and Kalyvas (2012).

[27]Coleman (1986) illustrates the 'micro-to-macro problem' as "the process through which individual preferences become collective choices; the process through which dissatisfaction becomes revolution;

wartime violence that have started to address this problem by theorizing both micro- and macro-level processes, and by systematically linking different levels of analysis (e.g., Wood, 2003*a*; Kalyvas and Balcells, 2010; Balcells and Kalyvas, 2012; Cederman, Gleditsch and Buhaug, 2012).[28]

Consistent with the emphasis on cross-level theorizing, I proceed from an understanding of collective action that acknowledges the endogenous nature of preference formation at both the level of individuals and groups. Rather than analytically imposing a certain type of collective good or common goal for all individual and collective actors, I build on those approaches that theorize the very process of collective interest formation as a function of social interactions and political opportunities (Baldassarri, 2009). In the words of Baldassarri (2009):

> "Shared interest and collective identity arise from the interplay of patterns of micro relations and the alignments they generate at the macro level. Consequently, neither individual dispositions nor structural features can be assumed as stable properties, because their changes are constitutive aspects of collective-action phenomena" (Baldassarri, 2009, 404)

In what follows, I summarize my theoretical arguments on the consequences of state violence for i) cohesion and concerted defection within insurgent organizations, ii) counterinsurgent collective action on behalf of civilian communities, and iii) processes underlying conflict duration and termination. While the first two theoretical arguments are elaborated and tested in chapter 5 and 6, in chapter 7 I focus on the aggregate effect of state violence on conflict duration and outcome.

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through which simultaneous fear in members of a crowd turns into a mass panic; through which preferences, holdings of private goods, and the possibility of exchange create market prices and a redistribution of goods; through which individuals' task performance in an organization creates a social product; through which the reduction of usefulness of children to parents leads families to disintegrate; through which interest cleavages lead (or fail to lead) to overt social conflict" (Coleman, 1986, 1321).

[28] Cederman, Gleditsch and Buhaug (2012) link horizontal inequalities to civil war onset – two macro-level phenomena – by theorizing several mechanisms that link the individual to the group level. Their theory links, first, horizontal inequalities between groups to grievances at the individual level through the mechanisms of group identification, intergroup comparison, evaluation of injustice, and processes of framing and blaming. Second, micro-level grievances are linked to civil war onset through mobilization, claim-making, and repression. Balcells and Kalyvas (2012) show how technologies of rebellion induced by military power relations – themselves shaped macro-historical processes – affect the structure of rebel groups and by extension their behavior. Wood (2003*a*, 267ff.) shows in a formal model how individual-level processes – such as the decision to join an insurgency based on the belief that others will do so as well – feed back into group-level dynamics through bandwagon and cascade effects, thereby affecting not only the probability of insurgent collective action *per se*, but also its success.

### 3.3.1 Insurgent Cohesion and Defection

In chapter 5 I develop a theory on the impact of state violence on the probability of concerted defections within insurgent organizations, thereby clarifying a relationship that has been largely overlooked in the previous literature. I argue that indiscriminate state violence increases the vulnerability of insurgent organizations to fragmentation, defined as the process through which organizations split into separate organizations with their own composition, goals, and leadership. Specifically, my argument contends that this effect is driven by the interaction of several mechanisms at the individual, group, and organizational level: I argue, in short, that indiscriminate state violence increases the risk of insurgent fragmentation by enlarging the supply of fresh recruits, by strengthening the bonds between immediate group members (primary cohesion), and by disrupting intra-organizational coordination, strategic unity, and institutional arrangements that underpin secondary cohesion. I further argue that the divisive effect of indiscriminate state violence is mitigated if extant insurgent institutions that forge and sustain secondary cohesion are strong and resilient, which I hold to be more likely in irregular war.

At the individual level, indiscriminate state violence engenders and fortifies incentives to join insurgent ranks among members of the targeted group,[29] hence increasing the supply of volunteers that are 'pushed' into armed organizations by state violence, but would otherwise not necessarily follow the rebel's cause. As outlined above, indiscriminate state violence tends to fuel insurgent mobilization through moral outrage that spawns participation-related benefits (Wood, 2001; Wood, 2003*a*), by reinforcing grievances that stir reactive mobilization through increased individual cost-tolerance and radicalization (Cederman, Gleditsch and Buhaug, 2012; Goodwin, 2001; Wucherpfennig et al., 2012), and by turning protection from state violence into a selective incentive (Mason and Krane, 1989; Mason, 2004; Regan and Norton, 2005; Kalyvas and Kocher, 2007).[30] This

[29]Recall that I follow Kalyvas (2006) in using the term indiscriminate violence for various types of collective targeting, i.e., targeting based on profiling schemes.

[30]I do not assume these different sets of mechanisms – security, grievances, and in-process benefits – to be mutually exclusive, as both the preferences and opportunities of individuals are heterogeneous and time variant and the strategies of insurgent leaders diverse. State violence against uninvolved civilians

implies that, while indiscriminate state violence tends to breed surges of supplies of fresh recruits, it also tends to attract joiners primarily motivated by particular selective benefits, rather than the long-term goals and principles of the organization (see also Elster, 2006). Such peaks in the supply of 'lowly committed' recruits are not necessarily undermining insurgent cohesion *per se*, as long as armed organizations have both the incentives and the capacities to screen, socialize, and indoctrinate new recruits in conformance with the organization's goals and principles.[31] These incentives and capacities are themselves endogenous to wartime violence, as I will argue below.

In addition to amplifying individual-level motives to fight, indiscriminate state violence tends to strengthen the bonds between immediate group members, defined above as 'primary cohesion' (Siebold, 2007, 2011; Wood, 2010). The collective targeting of an insurgent organization's alleged constituency is likely to at least temporarily isolate fighting units from civilian communities and other factions. The shared experience of mutual dependence in a highly volatile environment and the joint exposure to high risks is likely to enhance trust and to deepen the social bonds between immediate group members, i.e., those combatants that manage to uphold regular contact (e.g., Cohen, 2010; Kenny, 2010).

However, strong individual-level commitments to fight for a common cause and close ties to fellow combatants are not sufficient to retain structural unity in rebel organizations. The challenge of insurgent leaders is not just to mobilize followers behind a common goal or against a common enemy, but to ensure strong ties to the specific goals, principles, and leadership of the organization across all ranks ('secondary cohesion'). In order to ensure loyalty among their fighters and to safeguard their organization against

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will for instance increase the number of individuals willing to join or support the insurgents (when given the option) out of defiance and regardless of how many others will join (Wood, 2003, 267ff.), while others will prefer to maximize their security under any circumstance (Kalyvas and Kocher, 2007), and through various means. The assumption of heterogeneous preferences is consistent with evidence from behavioral economics (e.g., Fischbacher and Gächter, 2006) and by now standard in many models of collective action (for a discussion see Baldassarri, 2009); on heterogeneous preferences in wartime collective action see for instance Elster (2006), on a formal model that explicitly incorporates the assumption of (endogenous) heterogeneous preferences, see Wood (2003, 267ff.).

[31] For instance, the insurgent organization in El Salvador's civil war aimed to transform personal demands for revenge into more general aspirations for justice – motives that were better suited to serve the long-term goals of the movement than the desire for vengeance (Wood, 2003, 204; Wood, 2012, 410, fn.10).

actual and prospective, internal and external competitors, leaders need to engender and maintain the conviction among their followers that theirs is the only true path to political change.[32]

Insurgent institutions geared towards the socialization and indoctrination of cadres and rank and file members play an important role in inducing and sustaining insurgent cohesion and internal control across all ranks (e.g., Gutiérrez Sanín, 2008; Staniland, 2010; Wood, 2010; Kenny, 2011; Wood, 2012), including whether norms about the use of certain types of violence will be transmitted from the leadership to rank and file members (Wood, 2010; Hoover Green, 2011; Thaler, 2012; Wood, 2012). If successful, institutionalized indoctrination both complements and partly substitutes for constant monitoring and the permanent enforcement of discipline by aligning individual preferences with organizational ones (Wood, 2010; Hoover Green, 2011; Wood, 2012). The most relevant aspect of armed groups' institutions for my argument is their role in the forging of strong secondary cohesion, that is, the identification of cadres and rank and file members with the overall organization.[33] High levels of secondary cohesion imply that the majority of cadre and rank and file members across all ranks share the same goals and principles, and identify with the organization as a whole.[34] The leadership

[32]There are, in fact, numerous conflict regions where several rebel groups compete for the same constituency (e.g., Wucherpfennig, 2011), and in many cases, the competitors of today were fellow combatants before.

[33]I do not argue that there is one particular type of ideology or mobilization frame, such as Marxism, that is particularly conducive to the consolidation of secondary cohesion. As long as strong institutions ensure ideological continuity and coherence across all ranks, as long as the ideological mobilization frame is consistent and appealing in the sense of resonating with salient grievances,*and as long as the particular ideological mobilization frame is closely tied to the organization*, the particular orientation is secondary. Mobilization frames may for instance also be based on religion or ethnicity. On the role of Marxism as a particular type of ideology, see Balcells and Kalyvas (2010) and Thaler (2012).

[34]I proceed from the assumption that if secondary cohesion is strong across-the-board, insurgent fragmentation will be unlikely, and that the most secure foundation of secondary cohesion are strong institutions for indoctrination (e.g., Wood 2012). Strong secondary cohesion does not necessarily require every rank and file soldier to be proficient in sophisticated ideological thinking, however. Henderson (1979) for instance argues, based on interviews with defectors and prisoners of war, that in the case of the North Vietnamese Army the role of indoctrination was not so much the immersed political education of every single rank and file combatant, but the upbringing of cadres who could be brought into positions with more authority. The leaders of squads and three-men cells provided the critical links between ordinary combatants and cadres at higher levels as well as the overall authority structure and organizational goals. In other words, secondary cohesion extended to the level of cell leaders, while at the level of cells it was primary cohesion that ensured consistency with organizational principles through the role of cell leaders. In the case of the North Vietnamese Army, the maintenance of secondary cohesion through institutionalized indoctrination was complemented by a tight system of intra-organizational control, which was sustained across multiple levels of command through constant surveillance across all

of the Shining Path insurgency in Peru, for instance, which placed highest emphasis on the ongoing indoctrination of its followers, managed to forge "a unity that appeared unbreakable, organic" (Degregori, 2012*a*, 35), particularly during the early stages of the war.[35]

I argue that while indiscriminate state violence tends to promote insurgent recruitment and to strengthen the bonds between immediate group members, it will weaken secondary cohesion: First, the disruption of civilian support[36] and surges of aspiring recruits will both increase the demand for and divert resources away from institutions that engender and sustain high levels of secondary cohesion. Second, indiscriminate state violence will tend to dilute secondary cohesion through the attenuation of intra-organizational coordination. Clear lines of command and regular communication between different divisions and units are more difficult to uphold when civilian networks are severely disrupted through flight and the militarization of civilian communities (see below) in the wake of indiscriminate state violence.[37] Third, at the level of high-ranking commanders, indiscriminate state violence tends to produce, uncover, and aggravate heterogeneous preferences, revealing divisions that might be fruitfully exploited by prospective defectors.

I argue that it is precisely under these conditions that coalitions of aspiring leaders of defecting factions will turn into first movers and launch their 'own' rebellion.[38] Upsurges

hierarchical levels (Henderson, 1979, 36, 65ff., 97ff., 117, 121; see also Wood, 2010, 314).

[35]In the words of one Shining Path combatant: "I do not think as a person any longer. One feels the party [Partido Comunista del Perú–Sendero Luminoso] as oneself, I am the party ... and everything we do and think is part of the party. Such is the political mutual understanding that we have, that we draw the same conclusions no matter how far we are from each other. It is the same thing in politics, and better still in the military realm. There may be a column that wanders off because the enemy besieges and divides it. Those two commands know what to do. The unit is so strong that we all have the same initiative. Without coordinating, we coordinate" Shining Path militant, interviewed in 1986 by Rita Márquez, quoted in Degregori (2012*a*, 35).

[36]Indiscriminate violence implies the targeting of alleged and prospective bases of civilian support and sources of support in the most basic sense of the term, i.e., the provision of basic supplies that civilians are typically in no position to deny to any armed group (see Wood, 2003, 17).

[37]Note that disrupted lines of communication and diluted intra-organizational coordination will not only weaken secondary cohesion – for instance by obstructing the maintenance of high institutional consistency across subunits –, but internal insurgent control in general.

[38]I assume that the 'first movers' of insurgent fragmentation, that is, the prospective leaders of deserting factions, are coalitions of mid-to high-level commanders that connect different levels of hierarchy within the organization, first joiners their immediate allies and subordinates, and the bulk of late joiners composed of fresh recruits and late defectors from the original organization. See Elster (2006) on 'first movers,' , 'first joiners', and 'late joiners'.

in fighting morale, primary cohesion, and incoming recruits, combined with diluted secondary cohesion, provide ideal conditions for concerted defections. Collective desertion is a risky endeavor, and prospective leaders of nascent splinter groups will seize the initiative only once they are confident that their closest allies and subordinates will stay loyal when the time comes – and that, once defected, they will be able to enlarge their ranks quickly. I further argue that the disruptive effect of indiscriminate state violence will be alleviated if existing insurgent institutions that forge and sustain secondary cohesion are strong and resilient, which I hold to be more likely the case in irregular wars, where the challenges to internal control are strongest. These arguments are elaborated in detail and empirically tested on a set of 114 post-Cold War internal armed conflicts in chapter 5. Consistent with my theory, I find that indiscriminate state violence increases the probability and severity of insurgent fragmentation, an effect that is mitigated under conditions of irregular war.

### 3.3.2 Counterinsurgent Collective Action

In chapter 6, I develop a theory on the conditions and mechanisms that link indiscriminate state violence to counterinsurgent collective action at the community level. I advance a distinction between 'autonomous', 'bottom-up', or 'community-based' mobilization on one side and government-imposed 'top-down' mobilization on the other. Top-down mobilization occurs where counterinsurgent groups are initiated or managed by state forces who organize groups of residents into militia units, while bottom-up mobilization refers to processes through which counterinsurgent organizations are created or sustained independently from the state and through the initiative of local residents themselves. Focusing on the theoretically most intriguing case of 'bottom-up' mobilization, I argue that one common and particular type of indiscriminate state violence, marked by direct and collective targeting, will increase the propensity of civilian communities to engage in counterinsurgent collective action when insurgents are weak in terms of territorial or internal control.[39]

[39]While qualitative evidence consistently points to three principal functions of community-based counterinsurgent groups (e.g., Fumerton, 2001; García-Godos, 2006) – protection from rebel incursions,

My argument suggests that exposure to indiscriminate state violence promotes not only the militarization of local governance through the transformation of local norms towards the prioritization of security as a collective good and the disruption of traditional institutions, but that it also increases the probability of this process being linked to counterinsurgent collective action through the logic of signaling. Furthermore, I assume counterinsurgent mobilization to be curbed, if not prevented, if insurgents manage to maintain high levels of territorial and internal control, a double condition that is exceedingly unlikely to be met under conditions of direct state violence and irregular war.

First of all, counterinsurgent mobilization may be pursued as a strategy of signaling, understood as the purposive display of features or actions with the intention to raise the probability of the receiver interpreting them in a given way (Gambetta, 2009, 170). In the face of state violence based on 'profiling', mobilization against insurgent groups is one of the few strategies available to targeted communities to evade the victim category – and thus, further violence – by demonstrating their non-allegiance to the insurgents.[40] Counterinsurgent mobilization is most likely to be pursued as a strategy of self-protection through signaling if state violence is neither entirely indirect nor completely arbitrary, as its logic is based on the perceived probability that signals will be received and that state agents will have incentives to discriminate if provided with the opportunity to update their beliefs. Under these conditions, counterinsurgent collective action may be one way civilian communities choose to convey their alignment with the stronger side to maximize their security as a response to state violence that discloses the insurgents' incapacity to protect the people they claim to represent.

Second, distinct from signaling is the institutionalization of armed self-defense at the community level that is geared towards the self-reliant provision of governance and security. The implementation of armed self-defense at the community level may not only occur for the sake of influencing the behavior of warring parties, but be part of a more

avoidance of state violence, and community governance –, I will argue in section 6 that indiscriminate state violence will increase the demand for all of these functions.

[40] See also Lyall, 2009, 337 and Kalyvas 2006, 167f.; on Peru see for instance Weinstein (2007, 248, 250), Coronel and Loayza (1992, 521) and García-Godos (2008, 69; 2006, 273).

comprehensive process of institutional change oriented towards communities' self-reliant provision of order and protection in an environment of high risk and volatility.[41] While the militarization of local governance – defined as "the supplanting of local forms of governance with new forms that reflect the influence of armed actors" (Wood, 2008, 550) – is an almost ubiquitous feature of armed conflicts (Wood, 2008), previous research has primarily focused on insurgents or state forces as providers of militarized wartime governance (Weinstein, 2007; Arjona, 2009*a*; Mampilly, 2011; Zürrer, 2013). However, civilians may themselves be the primary agents of wartime institutional change, including the militarization of local institutions for governance.

I argue that exposure to indiscriminate state violence will not only promote both of these processes – the militarization of local governance on one side and counterinsurgent collective action as a strategy of signaling on the other –, but that it also increases the probability of these processes being linked. I further argue that counterinsurgent mobilization will be reinforced not only through the maximization of security, but also through mechanisms that are related to grievances and in-process benefits, similar to the dynamics that underlie pro-insurgent mobilization (Wood, 2003*a*; Cederman, Gleditsch and Buhaug, 2012).[42] Indiscriminate state violence dramatically reveals not only the state's brutality, but also the insurgents' incapacity to protect the very people they aspire to govern, thereby undermining both parties' aspirations to secure legitimacy and support. Instead of representing an expression of private loyalties to the state, the mobilization for governance and self-defense helps individuals and communities to adapt to wartime conditions of high insecurity, and to restore a sense of shared identity, order, and agency in the midst of institutional disruption and victimization (for anthropological evidence see for instance Starn, 1995).[43]

[41] On self-defense forces as providers of wartime governance, see for instance García-Godos, 2006. On the wartime transformation of community norms and institutions in response to exposure to violence, see for instance Gilligan, Pasquale and Samii (2011).

[42] Recent research, based on surveys of former rebels and militia members, has shown that motivational differences between individuals engaged in insurgent and counterinsurgent groups are smaller than an understanding of counterinsurgent mobilization as 'rebellion reversed' would lead us to assume (Gutiérrez Sanín, 2008; Humphreys and Weinstein, 2008; Arjona and Kalyvas, 2009), suggesting that the expectation that all militia members fight 'in defense of the state' is flawed and afflicted with ecological fallacies.

[43] Such an interpretation is consistent with the theory on endogenous preference formation during

In chapter 6, I will elaborate on these mechanisms in detail and derive the hypothesis that exposure to indiscriminate state violence in the form of direct and collective targeting will increase the propensity of communities to engage in counterinsurgent collective action in irregular war. Empirically, I will test my argument based on a subnational study of the Peruvian civil war.[44] Using geo-referenced data provided by the Peruvian Truth and Reconciliation Commission (Comisión de la Verdad y Reconciliación, 2003*b*) and pursuing two distinct identification strategies, I provide novel and detailed evidence of a positive impact of state violence on subsequent counterinsurgent mobilization in Peruvian villages and towns.

### 3.3.3 Insurgent Survival and Conflict Termination

In chapter 7 I focus on the aggregate effect of state violence on conflict duration and outcome, thereby integrating the previously discussed mechanisms at the level of insurgent organizations and civilian communities with macro-level processes. Based on the mechanisms theorized in chapter 5 and 6, I derive specific implications for the prospects of various types of conflict termination and, by extension, conflict recurrence. In essence, I argue that while indiscriminate state violence may initially weaken insurgent capabilities, it will ultimately reduce the prospects of both negotiated settlements and decisive government victories. It will further increase the probability of conflicts fading out indecisively – an outcome that is particularly conducive to conflict recurrence –, and increase the prospects of insurgent victories.

To start with, indiscriminate state violence derogates the insurgents' offensive capabilities by inflicting damages on their sources of intelligence and retreat and their organizational capabilities (e.g., Arreguín-Toft, 2005; Downes, 2007*a*; Lyall, 2009). It further compromises the insurgents' military effectiveness by promoting *counter*insurgent mo-

wartime advanced by Wood (2003) as well as with recent research that suggests wartime victimization to be linked to an increased capacity for collective action and political mobilization in postwar environments (Bellows and Miguel, 2009), an effect that has been attributed to the wartime transformation of norms and institutions at the community level (Gilligan, Pasquale and Samii, 2011) as well as increased risk-seeking and pro-social behavior at the individual level (Voors et al., 2012).

[44] On the case selection criteria, see chapter 4.

bilization at the local level, as shown in detail in chapter 6, which is likely to divert resources from the insurgents' offensive military actions, suppressing armed competition in the short run (see also Lyall, 2009). Indiscriminate state violence exerts further influence on subsequent conflict dynamics by increasing the vulnerability of insurgent organizations to fragmentation, a relationship theorized and tested in-depth in chapter 5. While splits in insurgent organizations are likely to divert resources away from armed confrontations with state forces, they do not necessarily reduce the insurgents' effectiveness in the long run (Kenny, 2010). Organizational splits do, however, complicate negotiated forms of conflict resolution in several ways. First, insofar as 'original' insurgent organizations compete against their splinters for support among the same constituency, fighting state forces can become one of the primary means not only to achieve political change, but also to trump insurgent rivals in the quest for popular support (e.g., Wucherpfennig, 2011). Second, multiple actors and shifting actor configurations impede bargaining processes by exacerbating information asymmetries and commitment problems (e.g., Cunningham, 2006; Walter, 2009). Third, and for similar reasons, insurgent combatants will be more reluctant to consider demobilizing if their armed opponents are not exclusively found within the ranks of the state. According to my arguments developed in chapters 5 and 6, processes of insurgent fragmentation and counterinsurgent mobilization should also reinforce each other, as insurgent fragmentation is partially driven by the disruption of civilian support networks, and as counterinsurgent mobilization is promoted under conditions of diluted insurgent internal control.[45]

At the same time, however, indiscriminate state violence is likely to strongly promote pro-insurgent mobilization, the *sine qua non* for insurgent survival. Even if state policies change and violence recedes, past indiscriminate state violence is likely to promote insurgent recruitment and support in the long run by engendering grievances and moral outrage, thereby contributing to the longevity of insurgent organizations, even in cases where the offensive capabilities of insurgents are temporarily disrupted

[45]In a similar vein, while counterinsurgent collective action complicates the consolidation of insurgent territorial control, it is unlikely to emerge in areas where insurgents already enjoy full sovereignty. See chapter 6 for details.

(Goodwin, 2001; Wood, 2003*a*; Peceny and Stanley, 2010). Lastly, by amplifying polarization through the simultaneous intensification of pro- and counterinsurgent mobilization and by stimulating militarization at the local level, indiscriminate state violence will strongly play into the hands of radical elements that continue their mobilization efforts, possibly even once conflict activities have ceased, thereby further undermining the stability of conflict resolutions.

These empirical implications are tested in-depth in chapter 7 in a quantitative analysis of post-Cold War intra-state armed conflicts that carefully controls for alternative explanatory factors that may underlie both state violence and patterns of conflict termination. I find that indiscriminate state violence significantly increases the probability of insurgent victories and conflicts ending in 'low activity' outcomes, a type of conflict termination that has been shown to be particularly conducive to conflict recurrence. More specifically, I find this relationship to be convex for rebel victories and concave for low activity outcomes.

# Chapter 4

# Methodology

In this chapter I introduce the methodological approach of this dissertation in general and elaborate on the identification strategies pursued in subsequent chapters in particular. I start by discussing the causality conception that underlies the methodological approaches adopted in the empirical chapters, followed by its formal correspondent, the potential outcomes framework. I then introduce the specific identification strategies pursued in the ensuing chapters, followed by a discussion of the case selection strategy for the subnational analysis.

## 4.1 Causality Conception

I proceed from the assumption that empirical research strategies differ in their affinities to distinct conceptions of causation, and that the compatibility of ontology and epistemology is of particular importance when different research strategies are combined within the same project. Thus, while throughout this dissertation I rely on multiple methods, I try to avoid the pitfalls of closely tying empirical strategies together whose ontological foundations are not entirely compatible (Chatterjee, 2011; Ahmed and Sil, 2012).

At least three philosophical understandings of causation have shaped empirical research strategies in the social sciences in general and in political science in particular (see also Hidalgo and Sekhon, 2011; Steenbergen and Schubiger, 2013): regularity theory (Psillos, 2009), causal process theory (Dowe, 2009), and counterfactual theory

(Paul, 2009).

In regularity theory, the roots of which are widely attributed to David Hume, causation is defined in essence as the *constant conjunction of events*. In the words of Hume, a cause can be defined as

> "[a]n object precedent and contiguous to another, and where all the objects resembling the former are plac'd (sic) in like relations of precedency and contiguity to those objects, that resemble the latter" (Hume [1739] 1978: 170, cited in Psillos, 2009, 131)

According to this conception of causality, a causal relationship can be established if, and only if, the conditions of contiguity, succession, and constant conjunction are satisfied (Psillos, 2009, 131; Hidalgo and Sekhon, 2011, 203f.): A is a cause of B if A is contiguous to B in space and time (contiguity), if A is temporally prior to B (succession), and if events of type A are regularly followed by events of type B (constant conjuction).

The understanding of causation as the regular conjunction of events contrasts with causation as conceptualized in process theories. The latter – represented by scholars such as Wesley Salmon (Salmon, 1984; Salmon, 1994) and Phil Dowe (Dowe, 1992; Dowe, 2000; Dowe, 2009) – defines causation in terms of processes and interactions:

> "According to the process theory, any facts about causation as a relation between events obtain only on account of more basic facts about causal processes and interactions. Causal processes are the world-lines of objects, exhibiting some characteristic essential for causation" (Dowe, 2009, 214)

The core of a prominent variant of causal process theory is the idea of *conserved quantities*.[1] According to the theory of conserved quantity, developed by Dowe (1992) as an extension of the law of energy conservation in physics, a causal connection can be defined as follows:

> "There is a causal connection (or thread) between a fact q(a) and a fact q'(b) if and only if there is a set of causal processes and interactions between q(a) and q'(b) such that: (1) any change of object from a to b and any change of conserved quantity from q to q' occur at a causal interaction involving the following changes: $\Delta$q(a), $\Delta$q(b), $\Delta$q'(a) and $\Delta$q'(a) (sic); and (2) for any exchange in (1) involving more than one conserved quantity, the change in

[1] For overviews see Salmon, 1994; Dowe, 1992; Dowe, 2009.

> quantities are governed by a single law of nature. (...) where a and b are objects and q and q' are conserved quantities possessed by those objects respectively" (Dowe, 2000, sect. 7-4; cited in Dowe, 2009, 222)

In other words, it is the transmission of certain quantities from A to B through processes and interactions that informs us whether *causal* relationships between A and B are at work.

Yet another understanding of causation is advanced by counterfactual theories (Lewis, 1973).[2] Counterfactual theories of causation focus on the question of counterfactual dependence – questions of the type: What would have happened in the absence of a supposed cause? In essence, counterfactual theories understand causation in the sense of *counterfactual conditions* (Paul, 2009):

> "C causes E because the counterfactual 'if not C, then not E' is true. To the extent that this is successful, we have a counterfactual analysis of causation (...) Some counterfactual analyses are developed in terms of probabilistic counterfactuals, for example, if C had not occurred, E would not have had the probability of occurring that it did have" (Paul, 2009, 158f.)

Thus, in counterfactual theories, causation always involves the reasoning about an unobserved counterfactual quantity.

Empirical research methods commonly employed in the social sciences exhibit different degrees of affinity to these different philosophical understandings of causality (see also Hidalgo and Sekhon, 2011; Steenbergen and Schubiger, 2013): For instance, a close correspondence can be found between the assumptions underlying causal process theories and qualitative process tracing (George and Bennet, 2005), while the regularity approach finds its closest expression in some types of case study research designs (Gerring, 2007)[3] as well as qualitative comparative analysis and related approaches that are centered on the identification of necessary and sufficient conditions (Rihoux, 2008). The counterfactual approach, in turn, is in practice typically 'married' with probability theory, as discussed

[2]Note that parts of this reasoning are also found in the writings of David Hume, who in addition to the regularity theory of causation also advanced a second definition more in line with counterfactual theory; see Lewis (1973) and Sekhon (2004).

[3]On (a critique of) case study research designs that rely on the assumption of deterministic causal relationships, see Sekhon (2004).

below, and is most closely related to randomized experiments and observational studies that try to approximate experimental conditions (e.g., Hidalgo and Sekhon, 2011).

Given my interest in the causal *effects* of state violence, and given the probabilistic nature of my hypotheses, I will draw my inferences on methods that have a distinct affinity to the counterfactual approach to causality. The empirical chapters consequently all focus on the implications of the theoretical arguments in terms of their hypothesized causal *effects*. However, while the empirical analyses are devoted to the identification of causal effects, close attention is paid to causal mechanisms in theory building. This approach ensures the coherence between the ontological and epistemological assumptions underlying the different methodological strategies and maximizes the clarity and precision when it comes to the estimation of specific quantities of interest, while at the same time shedding light on the causal mechanisms that are theorized to underlie the causal effects. Furthermore, insights about causal effects at lower levels of analysis feed back into a better understanding of the causal mechanisms at work at higher levels.

Despite the strong emphasis on one particular type of causal inference and quantitative methods, qualitative evidence has played an important role at several stages of this project, including theory-building and the identification and validation of the assumptions underlying the natural experiment in chapter 6. Indeed, most natural experiments rely substantially on qualitative methods and evidence, as 'deep' case knowledge is required to assess the credibility of the identifying assumptions, such as the claim that treatment assignment is exogenous or close to random (Dunning, 2012, 208ff.). To give an example, in the regression discontinuity analysis in chapter 6 the key identifying assumption is that close to the emergency borders, exposure to state violence was close to random, as the borders of the emergency zones geographically coincided with administrative boundaries and were thus not entirely determined by conflict dynamics or the characteristics of communities. In other words, while the emergency zones were certainly not randomly distributed across the country, their limits were determined by administrative boundaries that had nothing to do with the conflict in itself, a fact that can be exploited when it comes to the identification of causal effects. While the legal decrees

documenting the assignment of the emergency zone borders could be confirmed based on secondary data collected by non-governmental organizations as well as primary sources (archival documents), historical case studies further increased my confidence that the military operations were indeed – not only *de iure* but also *de facto* – largely confined to these areas. Administrative documents obtained from Peruvian authorities were then used to identify changes in the names and boundaries of administrative units (districts and provinces) over time. Finally, geographic information systems were used to map the emergency zones and to identify the relevant border regions in the periods of interest, as well as to calculate the distance of each village and town to the emergency zone border (along with additional geographic variables).

In sum, both the data collection and empirical analyses are based on a variety of methods, including (but not limited to) the evaluation of archival material, the use of geographic information systems, and various tools to improve causal inference in observational studies (described below). And yet, while this diversity clearly reflects a commitment to methodological pluralism, I do not engage in a 'multi-method approach' in the narrow sense of the term, where one particular question is analyzed based on a close interaction of qualitative and quantitative methods to the point that both types of methods are supposed to answer the same questions and to validate each other.[4] Instead, while qualitative information is of crucial relevance for theory building, the measurement of variables, and the validation of assumptions, the specific tests of my hypotheses are exclusively based on quantitative methods in general and on approaches that resonate with the counterfactual framework of causality in particular.

## 4.2 The Potential Outcomes Framework

The *Potential Outcomes Framework*, also referred to in the literature as the *Neyman-Rubin Model*, the *Neyman-Rubin-Holland Model* or the *Rubin Causal Model* has become the dominant model underlying empirical causal inference that is based on the counter-

[4]On a critique of such multi-method approaches in the narrow sense of the term, see Ahmed and Sil (2012) and Chatterjee (2011).

factual approach to causality (Splawa-Neyman, 1923 [1990]; Rubin, 1974; Holland, 1986; for an overview of the background and genesis of this model, see Sekhon, 2008, and Hidalgo and Sekhon, 2011). In this section I formally introduce the potential outcomes framework, relying on (variations of) the 'standard notation' in the literature.[5]

The basic idea underlying the potential outcomes framework is – in case of a binary treatment $T \in \{0, 1\}$ – that each unit $i$ has two potential outcomes, one for the treatment ($T = 1$) and one for the control ($T = 0$) condition, regardless of what condition the unit will be exposed to.[6] $Y_i^1$ refers to the potential outcome of unit $i$ under treatment, while $Y_i^0$ refers to unit *i's* potential outcome under the control condition. The causal effect of treatment T on unit i can accordingly be defined as the difference in potential outcomes under treatment and control: $\varpi = Y_i^1 - Y_i^0$. We can also rewrite this as $\varpi = Y_i^T - Y_i^C$, which will make it easier to add subscripts for time periods when we come to the difference-in-differences strategy.[7]

The "fundamental problem of causal inference" (Holland, 1986, 647) refers to the fact that for unit $i$, there will always be only one potential outcome observed or 'realized'. If the unit gets treated, we observe $Y_i^T$, if not, we observe $Y_i^C$. Therefore, we will never be able to directly observe the causal effect of a given treatment at the individual level. Subjecting the same unit to different treatment conditions sequentially is also problematic, as prior exposure to T might influence the impact of a later exposure to C and vice versa (Rubin, 1974, 690).

We can, however, rely on probability theory and estimate causal effects at the aggregate level. With E (.) denoting the expectation in the population (and the subscript being dropped due to redundancy), the average causal effect is defined as:[8]

$E[Y^1 - Y^0] = E[Y^1] - E[Y^0]$

If T is randomly assigned, and the number of units is sufficiently large, then the

[5]Specifically, if not specified otherwise I largely follow Rubin (1974), Holland (1986), Morgan and Winship (2007), Angrist and Pischke (2009), Khandker, Koolwal and Samad (2010), and Keele and Minozzi (2013). The initial superscript notation follows Morgan and Winship (2007).

[6]If T assumes 1, unit $i$ is treated, if T equals 0, unit i is not treated (control condition).

[7]Note that the difference between $Y_i^1$ and $Y_i^0$ does not have to be defined as linear (Morgan and Winship, 2007, 33).

[8]See for instance Holland, 1986, 947; Morgan and Winship, 2007, 36; Angrist and Pischke, 2009, 13ff.; Keele and Minozzi, 2013,2.

treatment assignment will be independent of the potential outcomes: $\{Y^0, Y^1\} \perp T$. Under these conditions, the mean difference in outcomes across treated and control units can give a valid estimate of the average causal effect (Holland 1986: 947ff.; see also Angrist and Pischke, 2009, 12ff.; Morgan and Winship, 2007, 31ff.):

$E[Y^1 - Y^0] = E[Y^1] - E[Y^0] = E[Y^1|T = 1] - E[Y^0|T = 0]$

In observational studies, however, this is not the case, as by definition we cannot resort to randomization and therefore, the observed difference in means between treated and control units typically fails to reflect the average causal effect for the overall population, which can formally be shown as follows (Angrist and Pischke, 2009, 14f.):

$E[Y^1|T = 1] - E[Y^0|T = 0] = E[Y^1 - Y^0|T = 1] + E[Y^0|T = 1] - E[Y^0|T = 0]$

The problem here is that the treatment effect for those who actually receive the treatment $E[Y^1 - Y^0|T = 1]$ is not equivalent for those who do not receive the treatment $E[Y^1 - Y^0|T = 0]$. In other words, the potential outcomes of treated and control units differ, which is captured by the term: $E[Y^0|T = 1] - E[Y^0|T = 0]$. If this is the case, then we are facing the problem of *selection bias*. Under these conditions, the difference in means does not provide a valid estimate of the average causal effect (Angrist and Pischke, 2009, 14f.).

Angrist and Pischke (2009, 12ff.) give the illustrative example of a naive comparison in health status between people that were hospitalized during the past year and people that were not hospitalized during the past 12 months. Suppose we have a valid measure of people's health status after the year during which some people were hospitalized. If, on average, we would find hospitalized people to be in significantly worse health than those who were not hospitalized, would we then conclude that hospitals have negative consequences for people's health? Of course not. The reason is obvious: People who seek treatment in a hospital are expected to be – on average – in worse health than those who do not seek medical treatment in the first place.

This example captures the core of the most pressing problem of most observational studies that strive to identify causal effects. In essence, we do not know whether the potential outcome of treated units had they been untreated $E[Y^0|T = 1]$ is the same as the

potential outcome without treatment for those who are actually untreated $\mathrm{E}[Y^0|T = 0]$. Consider the question of whether armed groups whose alleged constituency is targeted by indiscriminate state violence will be more likely to fragment over time than armed groups whose alleged constituency is spared. How do we know that groups whose supposed civilian base is exposed to state violence are not more likely to fragment in the first place, because for instance certain features (such as a history of violent collective action) make them more prone to both exposure to state violence and insurgent fragmentation? This problem is also known as confounding; We can not be sure if differences in outcomes are caused by the treatment itself or by variables associated with both selection into treatment and the outcome (e.g., Dunning, 2010*b*). While confounding is typically more troubling in observational studies, it occurs in randomized experiments too, for instance in the case of one- or two-sided noncompliance, that is, if people do not follow the condition they were randomly assigned to (Dunning, 2010*b*; Gerber and Green, 2012).

Apart from the selection problem, untestable assumptions underlying statistical models pose another crucial problem (e.g., Keele and Minozzi, 2013, 2). Ideally, one can limit the number and complexity of statistical assumptions and focus on the core concern of identification, an approach also referred to as a 'design-based approach' (e.g., Dunning, 2010*a*).[9] Examples of design-based approaches are different types of natural experiments, some of which will be described in more detail below.

Most applications of the potential outcomes framework maintain the *stable unit treatment value assumption* or SUTVA (Rubin, 1980, 591; Rubin, 1986, 961), sometimes also referred to as the *noninterference assumption* (e.g., Dunning, 2012, 119). Rubin summarizes SUTVA as follows:

> "SUTVA is simply the a priori assumption that the value of $Y$ for unit $u$ when exposed to treatment $t$ will be the same no matter what mechanism is used to assign treatment t to unit $u$ and no matter what treatments the other units receive (...) SUTVA is violated when, for example, there exist unrepresented versions of treatments (...) or interference between units (...)"

[9] As Dunning (2010*a*, 208) emphasizes: "Of course, design based inference routinely relies on statistical models, and model-based approaches routinely entail some sort of research design. In principle, then, a crucial difference concerns not the *presence* of statistical models, but rather their simplicity, transparency, and credibility."

(Rubin, 1986, 961).

While the SUTVA assumption might seem exceedingly narrow in many social contexts, it is worth keeping in mind that the noninterference assumption is not unique to the potential outcomes framework. Standard multivariate regression models too rely on similarly restrictive assumptions about noninterference between units (e.g., Dunning, 2012, 120).

## 4.3 Identification Strategies

All research designs aimed at causal inference in obervational studies rely on so-called identification strategies – a set of assumptions about how the appropriate counterfactual for treated units should be defined and estimated (Keele and Minozzi, 2013, 2). Below I will introduce the basic identification strategies used in this dissertation, with a particular focus on the core intentifying assumptions underlying each strategy.

### 4.3.1 Selection on Observables

One of the most common – although often only implicitly invoked – assumptions in political science studies is typically referred to as the *selection on observables* assumption, which underlies matching strategies and most regression models alike. Here, it is assumed that conditional on a vector of *observed* covariates X, treatment assignment is independent of potential outcomes. This is also known as the conditional independence assumption (CIA) and is defined formally as: $\{Y^0, Y^1\} \perp T|X$

Importantly, in order for the selection bias to completely disappear, *all* covariates that influence selection into treatment and the outcome need to be observed (e.g., Angrist and Pischke, 2009, 53ff.; Keele and Minozzi, 2013,3). Both regression and matching rely in essence on the CIA as their most central identifying assumption. In regression, the pre-treatment confounders are added to the right-hand side of the regression equation that includes the treatment variable (Angrist and Pischke, 2009, 22ff.):
$\mathrm{Y} = \alpha + \beta T + \gamma \mathrm{X} + \epsilon$. Assuming constant treatment effects, $\alpha$ represents $\mathrm{E}(\mathrm{Y}^0)$, $\beta$

stands for ($Y^1$-$Y^0$), X for a vector of covariates, and $\epsilon$ the random part of $Y^0$. Here, the selection bias manifests itself in correlation between the error term $\epsilon$ and the treatment indicator T. In perfectly randomized experiments, or if we manage to perfectly control 'away' selection bias by removing all Xs from $\epsilon$, the selection bias disappears (Angrist and Pischke, 2009, 22ff.).

The two strategies, regression and matching, differ mainly in their functional assumptions, their efficiency, and in the way observations are weighted (Angrist and Pischke, 2009, 69ff.). In an nutshell, the differences between matching and regression can be summarized as follows (Angrist and Pischke, 2009, 69ff.): Regression estimators may be more efficient that matching estimators, but they also rely on more demanding assumptions when it comes to the functional form. Matching estimators have the appeal of revealing the counterfactual in a more transparent way than regression models typically do. And finally, matching and regression differ in their weighting schemes, which implies that the results from each strategy are unlikely to diverge dramatically unless the treatment effect varies considerably across cells. Matching (and related strategies, such as entropy balancing) can also be combined with regression analysis, such as when regression models are estimated on data that were preprocessed in order to create balanced samples and to increase unit homogeneity (e.g., Ho, Imai, King and Stuart, 2007; Hainmueller, 2012). I will rely at least partially on matching, regression, and data preprocessing in all empirical chapters.

### Propensity Score Screening and Matching

When pursuing a selection on observables strategy based on matching, one of the problems that can arise is that there are many potential confounders and not enough cases to match on all covariate values. This problem can be solved through matching on the propensity score, defined as the conditional probability of being exposed to the treatment given observable pre-treatment covariates (Rosenbaum and Rubin, 1983): $p(\mathrm{X}) \equiv \Pr(T = 1|X)$. If there are no additional omitted factors affecting selection into treatment, and if common support holds ($0 < P(T = 1|X) < 1$), matching on the one-dimensional

propensity score $p$(X) can substitute for matching on X (Rosenbaum and Rubin, 1983; see also Khandker, Koolwal, and Samad, 2010, 53ff.; Becker and Ichino, 2002, 359f.).

In chapter 6, where I investigate the effect of indiscriminate state violence on Peruvian villages and towns, I use substantive knowledge of selection into treatment – i.e., exposure of villages to state violence – to estimate the propensity score for each unit. The propensity score is then used, first, to pre-screen the data and to limit the difference-in-differences estimation to the region of common support, i.e., to the region where the propensity score intervals of treated and control units overlap (see also Angrist and Pischke, 2009, 90f.),[10] and second, to employ different techniques to match targeted villages to non-targeted units based on the propensity score (Angrist and Pischke, 2009, 80ff.; Khandker, Koolwal, and Samad, 2010, 53ff.).

In the subnational analysis in chapter 6 I will rely on propensity score estimation since this allows me to apply not only various matching techniques, but also to combine difference-in-differences estimation (explained below) in a straightforward and transparent way. Specifically, difference-in-differences estimation will be combined with propensity score *screening*. In propensity score screening, no matching or weighting strategies are pursued, but control units outside the region of common support are discarded (e.g., Angrist and Pischke, 2009, 91f.). Both strategies – difference-in-differences estimation with matching and screening – will be described in more detail below.

### Entropy Balancing

An alternative to propensity score screening and matching is entropy balancing, a balancing method likewise based on the selection on observables assumption (Hainmueller, 2012). In the simplest scenario, entropy balancing reweights the control units in order to match the covariate moments between the treated and control group; based on the balanced sample, the average treatment effect on the treated ATT = E[$Y^0|T = 1$] -

[10]Note that the common support condition is in practice invoked and implemented in various ways. Angrist and Pischke (2009, 90f.) for instance focus on the region $0.1 > p(X) < 0.9$, whereas I employ the more restrictive definition, according to which the region of common support refers to the region for which the propensity scores of treatment and control groups overlap (e.g., Becker and Ichino, 2002); on common support estimation, see also Heckman, Lalonde and Smith (1999) and Caliendo and Kopeinig (2005).

$E[Y^1|T = 1]$, which is the most commonly estimated quantity of interest in observational studies, can consequently be estimated based on the conditional independence assumption (Hainmueller, 2012, 30). While $E[Y^1|D = 1]$ is observed, the counterfactual mean $E[Y^0|T = 1]$ has to be estimated. Entropy balancing estimates the counterfactual mean as follows (Hainmueller, 2012, 30): $E[Y^0|T = 1] = \frac{\sum_{\{i|T=0\}} Y_i \omega_i}{\sum_{\{i|T=0\}} \omega_i}$

The weights $\omega_i$ that are assigned to each control unit are determined based on a minimum discrepancy estimator, balance constraints set by the researcher (typically in terms of order moments of covariates), and normalization constraints (Hainmueller, 2012, 30f.). Thus, while the basic idea is similar to propensity score weighting, where the treatment probability is estimated through logistic or probit regression, entropy balancing directly estimates the unit weights to match the sample moments between the treatment and the (reweighted) control group. With the treatment indicator orthogonalized with regards to the covariate moments specified in the entropy balancing, model dependence is reduced in subsequent data analysis (Hainmueller, 2012, 30f.).

In the crossnational analyses (chapters 7 and 5), most regression models will be based on data preprocessed by entropy balancing, which is a very intuitive and transparent way to strengthen causal inference based on relatively heterogeneous samples and more complex regression models (in this case, parametric and semiparametric duration models as well as binary and ordered logit). In essence, however, the assumptions underlying entropy balancing and propensity score screening and matching are very similar.

In the subnational analyses (chapter 6), I will rely on propensity score matching and screening as well as several additional identification strategies, which are briefly outlined below.

### 4.3.2 Selection on Unobservables

#### Difference-in-Differences

The assumption underlying matching, regression adjustment, and balancing strategies – *selection on observables* – is not always a sound foundation for valid causal inference, as it is often the case that not all confounders can be observed and measured. One approach

to address *unobserved* confounders is the so-called difference-in-differences design. The basic principle of difference-in-differences (DiD) estimation is to compare treated and untreated units before and after treatment; the difference between pre- and post-treatment outcomes is then compared between the two groups. The DiD approach consequently allows for *unobserved* heterogeneity, as long as the sources thereof are either time-invariant or follow parallel trends in treatment and control units. Under these conditions, selection biased induced by unobserved heterogeneity will be eliminated through differencing (Angrist and Pischke, 2009, 221ff.; Khandker, Koolwal, and Samad, 2010, 71ff.). Formally, the average causal effect in a difference-in-differences setting can be written as follows (Khandker, Koolwal, and Samad, 2010, 72, 80; see also Mu and Van de Walle, 2011, 717f.): DiD = E[$Y^T_{i1}$-$Y^T_{i0}$|$T$ = 1] - E[$Y^C_{i1}$-$Y^C_{i0}$|$T$ = 0], where $T$ = 1 denotes the treatment and $T$ = 0 the control condition, and $Y^T_i$ and $Y^C_i$ the outcomes of targeted and non-targeted units during the pre- and post-treatment period (0,1). In a regression framework with two periods, the DiD estimator can be specified as follows: $Y_{it} = \alpha + \beta T_{it} t + \delta T_{it} + \phi t + \epsilon_{it}$. The coefficient $\beta$ of the interaction term between the period ($t$) and treatment dummy ($T$) indicates the average effect on the treated (Khandker, Koolwal, and Samad, 2010, 72f., 190; see also Angrist and Pischke, 2009, 233ff.). The key identifying assumption underlying the DiD strategy is that treated and control units would have followed the same trend (or parallel trends) without treatment, or in other words, that unobserved heterogeneity is time-invariant (Khandker, Koolwal, and Samad, 2010, 72f.; Angrist and Pischke, 2009, 230ff.). The validity of this crucial assumption, the parallel trends assumption, which basically remains untestable, should thus always be corroborated based on placebo tests (for instance a DiD analysis with pre-treatment outcomes of different periods as dependent variables) or graphs that illustrate time-trends over multiple periods (e.g., Angrist and Pischke, 2009, 230ff.).

**Difference-in-Differences and Matching**

While time-invariant unobserved heterogeneity is eliminated in DiD designs by differencing, sources of time-variant heterogeneity and selection bias might still be an issue. Of

particular concern are changes over time that are driven by initial conditions that influence selection into treatment. One potential solution is to combine the DiD approach with propensity score estimation and matching to take into account observable sources of time-variant heterogeneity and selection bias (Khandker, Koolwal, and Samad, 2010, 61, 71ff., 77ff.; see also Mu and Van de Walle, 2011, Van de Walle and Mu, 2007). First, the DiD approach can be combined with propensity score estimation to 'screen' the data and to reduce the sample to the region of common support to avoid extrapolation beyond cells with both treatment and control units (Angrist and Pischke, 2009, 77, 91) and to ensure that the estimation is limited to units that are comparable in terms of their initial conditions determining selection into treatment and time-variant heterogeneity (Khandker, Koolwal and Samad, 2010; Mu and van de Walle, 2011; van de Walle and Mu, 2007). Second, DiD estimation can be directly combined with matching (van de Walle and Mu, 2007; Khandker, Koolwal and Samad, 2010; Mu and van de Walle, 2011): With DiD estimation and matching combined, for unit $i$ the effect estimate can be written as $\mathrm{DiD}_i=(\mathrm{Y}^T_{i1}\text{-}\mathrm{Y}^T_{i0})$ - $\sum_{j\epsilon C}\ \omega(\mathrm{i,j})(\mathrm{Y}^C_{j1}\text{-}\mathrm{Y}^C_{j0})$ where $\omega(i,j)$ is the weight assigned to the $j$th control when using matching methods to compare it to the targeted unit $i$. In chapter 6, various matching techniques will be employed (and combined with the DiD approach) that are based on the estimated propensity score, i.e., the probability of receiving treatment conditional on a set of covariates X, defined as $p(\mathrm{X}) \equiv \Pr(T = 1|X)$.

### 4.3.3 Natural Experiments

An alternative to the above-mentioned strategies are so-called 'natural experiments' – "in which social and political processes, or clever research-design innovations, create situations that approximate true experiments" (Dunning, 2012, 2f.). Natural experiments are observational studies that exploit the fact that among some units in the study population, treatment is 'as-if' randomly assigned and hence, comparisons between treated and control units yield valid evidence of causal effects (e.g., Dunning, 2012, 3). In this dissertation I exploit one particular type of a natural experiment, a regression discontinuity design, and specifically the spatial fuzzy variant thereof, which leads to an instrumental

variable approach.

**Regression Discontinuities and Instrumental Variables**

Regression discontinuity designs are research designs that exploit the fact that exposure to a given treatment is fully or partially determined by the values of one or several observed covariates and that therefore, exposure to treatment may be close to random within a narrow region around the assignment threshold. This in turn allows for the identification of local average treatment effects for units that are located in a narrow region of the assignment threshold (Imbens and Lemieux, 2008; see also Dunning, 2012, 63ff.; Khandker, Koolwal, and Samad, 2010, 103ff.; Angrist and Pischke, 2009, 251ff.).

There are two main types of regression discontinuity (RD) designs (Angrist and Pischke, 2009, 251ff., see also Imbens and Lemieux, 2008; Lee and Lemieux, 2010): 'Sharp' RD designs and 'fuzzy' RD designs. In sharp RD designs, the selection into treatment is determined deterministically by a discontinuous function of the so-called 'forcing variable' $x$.[11] There is a 'sharp' cutoff $x_z$ where treatment status changes discontinuously, so that T = 1 if $x_i \geq x_z$ and T = 0 if $x_i < x_z$ (Angrist and Pischke, 2009, 251f.). If the conditional expectations of the potential outcomes are continuous functions of the forcing variable, and if the probability of treatment assignment jumps from 0 to 1 at a given cutoff, then the average causal effect at the cutoff is (Lee and Lemieux, 2010, 288): $\lim_{\epsilon \downarrow 0}$ E[Y | $x_i + \epsilon$] - $\lim_{\epsilon \uparrow 0}$ E[Y | $x_i + \epsilon$] or simply E[$Y^1 - Y^0$| $x_i$=$x_z$].

Of course, it is not possible to observe both treated and nontreated units right at the cutoff (or at any other value of $x_i$). However, in the immediate region of $x_z$, treated and nontreated units might be similarly comparable as treated and control units in randomized experiments. If there are enough observations in the region just around the assignment threshold, the causal effect can be identified by local linear regression or simple difference in means.[12] Often, however, parametric approaches have to be used due to data limitations in the narrow region of the threshold. In this case, it is particularly relevant to rule out misinterpretations of nonlinear functions as 'jumps' at the cut-off.

[11] On RD designs based on multiple forcing variables, see Imbens and Zajonc (2011).
[12] On difference in means analysis in RD designs, see for instance Dunning (2012).

Moreover, it is crucial to show that other determinants of the dependent variable vary smoothly across the threshold, and that the forcing variable is the single most important source of the discontinuity (Angrist and Pischke, 2009, 251ff.; Lee and Lemieux, 2010, 286f.). One example that captures the intuition of this type of research design very well is the comparison of near winners and near losers in close elections: Based on the assumption that close winners and close losers of elections are very similar, the effects of holding office can be studied for a given subgroup (e.g., Lee, 2008; Hainmueller and Eggers, 2009).[13] If the dependent variable Y (such as the re-election probability) 'jumps' discontinuously at the cutoff value of the forcing variable (e.g., vote share) that determines assignment to treatment (e.g., election into office), then the discontinuity in the dependent variable can be interpreted as the (local) average causal effect of D on Y (see Lee, 2008; Angrist and Pischke, 2009, 257ff.).

If treatment assignment is a probabilistic function of the forcing variable, we are talking about 'fuzzy' RD designs; here, the *probability* of treatment increases discontinuously with the values of the forcing variable (Angrist and Pischke, 2009, 259ff.). Formally, the fuzzy RD design only requires the following assumption when it comes to the treatment probability at the assignment threshold (Lee and Lemieux, 2010, 300):
$\lim_{\epsilon \downarrow 0} \Pr[T=1 | \; x_i + \epsilon] \neq \lim_{\epsilon \uparrow 0} \Pr[T=1 | \; x_i + \epsilon]$. Examples of fuzzy RD designs are eligibility criteria for certain programs that determine eligibility based on a fixed criterion, but where the actual take-up of the program is not fully determined by the eligibility status. 'Fuzzy' RDs are typically analyzed in two ways (see also Dunning, 2012, 134ff., 149ff.): First, intention-to-treat analysis estimates the impact of a given program on the targeted population regardless of the compliance rate. The intention-to-treat (ITT) principle is applied in many observational studies as well as in randomized experiments with imperfect compliance, as it is often of substantial interest how a given program affects the overall target population, regardless of how many people actually chose to directly participate in the program.[14] However, there is typically also an interest in the direct effects of a program on those who actually chose to participate in it, the average

[13] For a comprehensive overview of RD designs in the social sciences, see Dunning (2012).
[14] On ITT analysis in randomized experiments, see for instance Gerber and Green (2012).

treatment effect on 'compliers'. Thus, second, fuzzy RD analysis also typically yields an instrumental variable approach; in the simplest form, the criterion that determines program eligibility (to stay with the example mentioned above) is used as an instrument for program take-up, and the ITT estimate is scaled by actual program take-up and the first stage respectively (Hahn,Todd and Van der Klaauw, 2001; Van der Klaauw, 2002; see also Imbens and Lemieux, 2008; Lee and Lemieux, 2010).

In chapter 6, I will rely on a spatial fuzzy RD design, since in Peru, the probability of exposure to state violence was in certain geographic area and for a given time period largely determined by administrative boundaries.[15]

## 4.4 Case Selection for Subnational Analysis

While I rely on both macro- and microlevel data, I deliberately refrain from regression analysis to select the case for the subnational analysis. A regression-based case selection technique is relatively common in multi-method research (Lieberman, 2005; Gerring, 2007; Fearon and Laitin, 2008). However, while I believe regression-based case selection to be an extremely useful model to think about types of case studies theoretically (Gerring, 2007; Gerring, 2008), such a strategy is rarely indicated in practice. Due to the uncertainty about the 'true' model that underlies virtually all statistical modeling, the regression-based selection of cases can lead to conclusions that reflect the misspecification of the model more than the 'true' one (Rohlfing, 2008).[16] Random case selection (Fearon and Laitin, 2008) too is not an option in my case, as the dataset I rely on in the crossnational analyses does not reflect the full population of cases I am referring to in my theory, but instead a small sample thereof, due to limited data availability. Thus, even if the goal of this dissertation was to test the exact same effects or mechanism across levels – which is not the case, as different causal effects are examined on different levels –, a case selection based on the crossnational dataset would unnecessarily constrain the

[15]For an example of a spatial 'fuzzy' regression discontinuity design, see Basten and Betz (2013).

[16]In the worst case, and if the case analysis feeds back into large-N analysis, this can lead to the accumulation of bias, rather than its minimization (Rohlfing, 2008).

range of possibilities, given the limitations of the dataset.

Instead, the case selection is conducted independently of the macrocomparative dataset and based on the following criteria:

First, the case to be analyzed in the subnational analysis has to fall into the *scope conditions* of the theory. This criterion mirrors the defining question of all case study analysis – "what is this a case *of*?" (Gerring 2007: 13). In chapter 6 I study the effect of exposure to indiscriminate state violence on counterinsurgent collective action in civil wars. Since the theorized mechanisms are expected to apply in particular (though not exclusively) to irregular wars, the type of warfare marks the first selection criterion.

The second criterion is *data availability*. Data on wartime violence and mobilization are notoriously difficult to collect, and yet empirical rigor depends first of all on high quality information. Third, there should be wide *variation* on the independent variable(s) of interest, preferably exogenous variation, though that is of course not always possible.

The Peruvian armed conflict between the Shining Path and state agents that raged in Peru during the 1980s and 1990s satisfies all of those criteria. First, it classifies as a classic case of irregular war due to the steep military asymmetry between rebels and state forces. Second, thanks to the Peruvian Truth and Reconciliation Commission (Comisión de la Verdad y Reconciliación, 2003*b*), data on wartime violence in Peru are of excellent detail, coverage, and quality. Third, type and intensity of state violence varied sharply across time and space; the particular circumstances of the Peruvian conflict even allow for the pursuit of several distinct identification strategies that greatly facilitate causal inference in observational studies.

# Part II

# State Violence and Insurgent Organizations

# Chapter 5

# State Violence and Insurgent Fragmentation

## 5.1 Introduction

The extent to which insurgent organizations manage to maintain internal control and cohesion varies dramatically. Some organizations successfully unite their members behind a common goal for a very long time, while others quickly disintegrate and decay, sometimes into violently competing groups (Kenny, 2010; Staniland, 2010; Bakke, Cunningham and Seymour, 2012). The *Fuerzas Armadas Revolucionarias de Colombia* (FARC), for instance, have been a highly unified organization for several decades now, successfully managing the challenge of coalescing a multitude of divisions and groups (Gutiérrez Sanín, 2008). By contrast, the *Groupe Islamique Armée* (GIA), set up in Algeria in 1992, underwent several splits within the first few years of its existence, as insurgent leaders defected to form their own armed opposition, resulting in organizational fragmentation and violent confrontations between different groups.[1]

*What effect does state violence have on the cohesiveness and fragmentation of insurgent organizations?* In this chapter[2] I argue that indiscriminate state violence increases

[1] Uppsala Conflict Data Program (date of retrieval: June 5, 2013), UCDP Conflict Encyclopedia: `http://www.ucdp.uu.se/gpdatabase/gpcountry.php?id=3&regionSelect=1-Northern_Africa`, Uppsala University.

[2] I thank John N. Griffin, Abbey Steele, and Julian Wucherpfennig for excellent comments on previous

the probability of insurgent fragmentation, defined as the process through which insurgent organizations split and decay into distinct organizations with their own composition, goals, and leadership. I develop a theoretical framework that focuses on the mechanisms through which indiscriminate state violence exerts its influence on different dimensions of insurgent cohesion and internal control, and derive implications for the probability and severity of organizational splits.

Specifically, I argue that while indiscriminate state violence increases small group cohesion and multiplies individual-level motivations to fight, it tends to weaken organizational coordination, strategic unity, and institutions that foster cohesion transcending organizational divisions and hierarchies ('secondary cohesion'), thereby undermining the structural unity of insurgent organizations. I further argue that the disruptive effect of state violence is mitigated through strong insurgent institutions that create and sustain secondary cohesion.[3] These institutions, in turn, I expect to be stronger and more resilient in irregular wars.

In chapter 2 I have reviewed the extant literature on the determinants of armed groups' cohesion and fragmentation and identified its strengths and weaknesses with a particular focus on what we can learn from this work when it comes to the consequences of violent state repression. I proceed in this chapter by developing a theory of state violence and insurgent fragmentation, building on prior theoretical work concerning insurgent mobilization, rebel cohesion, and armed groups' institutions. The empirical section then introduces the methodological approach and the data before presenting the results. The chapter concludes with a summary of the main findings and a discussion of remaining avenues for future research.

versions of this chapter.

[3]As discussed in chapter 3, primary cohesion refers to hierarchical and vertical bonding in small groups (such as fighting units), whereas secondary group cohesion refers to the commitment of individuals to the organization as a whole (see Siebold 2007, 2011; Wood, 2012).

## 5.2 A Theory of State Violence and Insurgent Fragmentation

In this section I develop a theory of state violence and insurgent fragmentation. I argue that indiscriminate state violence increases the risk of insurgent fragmentation through the combined effects of an increased supply of fresh recruits, strengthened primary cohesion, and institutional disruption that negatively affects secondary cohesion. Consequently, I further argue that the disruptive effect of indiscriminate state violence will be mitigated if existing institutions that forge and sustain secondary cohesion are strong. These institutions, in turn, I expect to be more robust when conflicts are fought as irregular wars.

Specifically, I develop and test a theoretical argument that is based on the identification of distinct but related mechanisms that connect indiscriminate state violence to insurgent fragmentation. To start with, indiscriminate state violence increases the supply of volunteers that are 'pushed' into armed organizations by state violence, but would otherwise not necessarily aim to join the insurgency. Such upswings in the supply of 'lowly committed' volunteers are not necessarily threatening to the cohesiveness of armed organizations, as long as armed organizations have the incentives and institutional capacities to screen, socialize, and indoctrinate new and prospective recruits in accordance with the organization's values and interests. These incentives and capacities are themselves endogenous to wartime dynamics, and I argue that while primary group cohesion tends to be strengthened by indiscriminate state violence, secondary cohesion is likely to be weakened.[4] I further argue that the supply of fresh recruits and strong primary cohesion on one side, combined with weakened institutions for indoctrination, hindered intra-organizational coordination, and diluted strategic unity on the other, will render the concerted defection of insurgent factions more likely. If, however, existing institutions that foster individual- and group-level commitment to the overall organization are strong and resilient, the divisive effects of indiscriminate state violence are mitigated.

[4]For definitions of primary and secondary cohesion, see chapter 3.

While I will illustrate my theoretical argument with qualitative examples (primarily drawn from the literature on the Irish Republican Army and its successors and, to a lesser extent, the FARC in Colombia and the Shining Path in Peru), I will test the empirical implications crossnationally based on a dataset of armed organizations actively involved in intra-state armed conflicts between 1989 and 2003.

**Supply of Recruits, Screening, and Recruitment**

As mentioned in chapter 3 (see also chapter 7), there are several mechanisms through which indiscriminate state violence tends to stimulate insurgent mobilization and recruitment. In short, indiscriminate state violence is likely to increase the influx of volunteers that aim to join insurgencies in the hope of maximizing their physical security (Mason and Krane, 1989; Goodwin, 2001; Kalyvas and Kocher, 2007) and of recruits that are motivated by grievances, the quest for revenge, or in-process benefits (Wood, 2003*a*). On the one hand, such surges are often welcomed by insurgent leaders as they help to enlarge their ranks quickly – or to at least replace their losses. On the other hand, in the wake of state violence rebel organizations are typically faced with an increased influx of volunteers motivated specifically by protection and vengeance, rather than a commitment to the principles and long-term goals of the organization. An abundant supply of recruits whose commitment to the organizations' principles and goals is weak has the potential to negatively affect the internal control and cohesion of armed groups (e.g., Weinstein, 2007).[5]

As Kenny (2010, 544) notes with regards to the Provisional Irish Republican Army (PIRA) in the 1970s:

> "For almost all of the former PIRA members with whom I spoke, this event ['Bloody Sunday' – the shooting of 26 unarmed civil rights marchers in 1972, 14 of which died] more than any other was the main motivation in joining the organization. (...) The new members were not traditional Republicans, as the men who founded the PIRA had been; rather, they were motivated

[5] As Mason (2004, 95) puts it: "If supporters can be counted upon only as long as side payments are forthcoming, then the movement is likely to collapse during those periods in the ebb and flow of political contention when the movement's strength (and therefore its ability to dispense selective incentives) declines relative to that of the regime."

> by their everyday experience of British tanks and soldiers on the streets, and attacks by Loyalist militias. (...) Yet, this massive increase in numbers was soon to contribute to disintegration (...) Along with the increase in size came a decline in quality of recruits, and more troublingly, increased infiltration of the organization by British security forces (...) The organization had become disintegrative." (Kenny, 2010, 544)

Whether and to what extent inflows of certain 'types' of recruits will actually have a detrimental effect on the level of insurgent cohesion and the risk of organizational fragmentation will depend on two factors: first, the recruitment and screening strategies of armed groups, and second, the internal institutions that forge and sustain the commitment of individuals not only to their immediate peers, but to the goals and principles of the overall organization. Insurgent groups differ in the strategies they use to select and screen prospective recruits (Weinstein, 2007), and they do not always aspire to grow in size (Kalyvas and Kocher, 2007). Recruitment and screening strategies thus condition the impact of state violence on the composition of insurgent groups. While the civil war literature has made more progress in understanding how insurgent groups deal with the task of attracting new followers, less attention has been devoted to how insurgent groups deal with *over*supplies in recruits.[6] Although little theoretical work has been written about this, qualitative case descriptions suggest that this problem might not be uncommon. One potential strategy to deal with oversupplies of 'low-quality' volunteers – especially those that might join competing organizations if rejected –, is to organize them as local auxiliary forces.[7] As O'Leary (2007) notes with regards to the Provisional Irish Republican Army:

> "[T]he IRA has a surplus of potential volunteers who might otherwise join other republican organizations or dilute the caliber of the core organization. Organizing the surplus in auxiliaries and punishment squads solves some of this problem." (O'Leary, 2007, 204)

In general, I assume that while indiscriminate state violence will enlarge the supply of new recruits for insurgents, it will have a negative effect on the incentives and capacities of high- and mid-rank insurgent leaders to screen new recruits carefully. If counterinsurgent

[6] Though see Kalyvas and Kocher (2007, 212), who have already prominently pointed out this issue.
[7] On the use of local agents and militias by armed actors, see also Kalyvas (2006, 107f., 190f.).

campaigns are not exclusively harming non-involved civilians but also combatants and their supporters, for instance, they may increase the pressure on rebel groups to enlarge their ranks to replace losses, which in turn could lead to more lenient recruitment and screening criteria. This was reported indeed in the case of the Provisional IRA: While all prospective volunteers underwent a screening process, new recruits were still quite readily accepted in the turbulent 1970s. However, that policy would change later as it became clear that a lenient recruitment strategy made the organization vulnerable to infiltration (Hamill, 2011, 84ff.).[8]

A number of scholars have argued from a perspective that strongly suggests time-invariant preferences of combatants. Weinstein (2007) proposes a theory according to which initial incentive structures in rebel recruitment determine the motivation of combatants – which are assumed to remain stable over time – and thus, the long-term quality of insurgent institutions and levels of insurgent internal control. Others suggest that a constant stream of selective incentives will be necessary to prevent insurgent defection, regardless of initial motivations, as the preferences of leaders and rank and file combatants typically differs in insurgent organizations (Regan and Norton, 2005).[9] In a similar vein, yet other scholars stress the relevance of negative incentives and the constant need for in-group policing to prevent defection (e.g., Richards, 2012).

This perspective neglects, first, that insurgent leaders are typically aware of these challenges and are often capable of adjusting their recruitment and screening strategies to changing environments, and second, that institutionalized processes of socialization and indoctrination play an important role in explaining endogenous preference change

[8]The dynamics are more complex when it comes to forced recruitment. One the one hand, if indiscriminate violence is not only perpetrated by the state but also insurgents, or if state violence is selective, oversupplies of recruits should become less likely (Mason and Krane, 1989; Kalyvas, 2006; Kalyvas and Kocher, 2007), and recruitment strategies may thus shift from voluntary recruitment to conscription. But of course, insurgent conscription is not limited to those specific settings. Beber and Blattman (2013, 69), for instance, suggest that forced recruitment is more likely when coercion is 'cheap' in the sense that there is not much civilian support to loose or if state forces fail to protect civilians, which should be more likely in cases of indiscriminate state violence. In any case, like short-term rewards, forced recruitment is likely to have detrimental effects on the initial commitment of recruits (e.g., Cohen, 2010).

[9]Regan and Norton (2005) argue that "grievance leads to collective behavior, but defection is always a problem, so rebel leaders resort to selective benefits that tap into self-interested behavior. That is, since preferences of the leadership and soldiers generally differ, the leaders must pay selective benefits to keep rebel soldiers from defecting. This is made easier when extractable resources are contested and controlled by rebel forces" (Regan and Norton, 2005, 319).

(Gutiérrez Sanín, 2008; Hoover Green, 2011; Thaler, 2012; Wood, 2012). Moreover, screening and indoctrination might happen in parallel, such as when insurgents recruit among affiliated youth wings or couple their recruitment efforts with political education (Eck, 2010).

The PIRA's recruitment and screening practices, for instance, underwent several major transformations, such as when the organization was radically reorganized and the number of members reduced in the late 1970s as a reaction to the above-mentioned problems of infiltration (Kenny, 2010, 545), or when the *Fianna Eireann* (the IRAs youth wing)[10] was disbanded in the 1980s in a bid to tighten recruitment practices once more for similar reasons (Hamill, 2011, 85f.).[11]

Recent studies have also cast doubt on the narrow assumptions about combatant preferences, instead focusing on the diversity of motivations even on the individual level (e.g., Humphreys and Weinstein, 2008) and on armed groups' institutions and their transformative effect on the preferences of individuals (e.g., Gutiérrez Sanín, 2008; Hoover Green, 2011; Wood, 2012). The latter body of work has convincingly shown that armed groups' institutions can indeed alter individual-level preferences, for instance when it comes to the internalization of norms about violence (Hoover Green, 2011; Wood, 2012)[12] or the propensity of individuals to defect to competing organizations (Oppenheim et al., 2012).[13]

Therefore, I assume that even if inflows of new volunteers significantly alter the composition of armed organizations in the short term, whether and to what extent this will impair insurgent internal control will depend on the internal institutions that forge and sustain the commitment of individuals not only to their immediate peers, but to the

[10]The PIRA relied up to the 1980s partially on its youth wing, *Na Fianna Eireann*, to socialize and educate prospective young volunteers in accordance with the values and principles of the Republican movement; *Na Fianna Eireann* also served as a vehicle for the screening and recruitment of young volunteers (Hamill, 2011; Gill and Horgan, 2013).

[11]The Irish National Liberation Army (INLA), by contrast, has been marked by 'loose recruitment policies' (Sanders, 2012, 161), with detrimental effects of organizational cohesion (Staniland, 2010; Sanders, 2012).

[12]Secondary cohesion is explicitly conceptualizes as an important source of insurgent internal control in general and with regards to repertoires of violence in particular in Wood (2009, 137) and Wood (2012).

[13]The relevance of armed groups' institutions for insurgent cohesion is also emphasized by Staniland (2010), who argues that the social base of insurgent organizations determines the strength of their institutions. His argument is thus primarily centered on the relevance of social networks (as well as external support) as causal factors.

goals and principles of the overall organization and its leadership.

In what follows, I will argue that indiscriminate state violence will increase not only the pool of potential recruits, but also facilitate socialization processes that create and sustain primary cohesion, while at the same time weaken those institutions that underpin secondary cohesion.[14] This latter effect will be less consequential if extant institutions that forge and sustain secondary cohesion in armed organizations are strong. This, in turn, I expect to be more likely when conflicts are fought as irregular wars.

### Institutional Strength and Cohesiveness in Groups and Organizations

The collective targeting of civilians associated with insurgent groups is likely to increase primary group cohesion within the ranks of the insurgents through socializing experiences such as increased isolation from non-combatant populations and other fighting units and the shared experience of mutual dependence and exposure to high risks.[15] For instance, based on the qualitative study of Burmese and Irish Republican armed groups, Kenny (2010, 551f.) suggests that shared sacrifices through state repression can promote organizational socialization that is conducive to insurgent cohesion. He also suggests that certain types of operations, such as the protection of civilians or the fight against the military, increase cohesion through the sense of burden sharing (Kenny, 2010; see also Kenny, 2011). Surges in inflowing recruits might also positively affect the perceived probability of victory, which in turn should suppress individuals' tendencies to defect (e.g., Gates, 2002). Wucherpfennig et al. (2012, 89ff.) and Cederman, Gleditsch and Buhaug (2012, 273ff.) stress two related mechanisms through which state-induced grievances not only stimulate insurgent recruitment, but also insurgent cohesion: first, increased cost-tolerance and commitment at the individual level, and second, increased solidarity among victimized groups.[16]

[14] On the relevance of secondary group cohesion for strong chains of command and patterns of violence, see Wood (2009) and Wood (2012).

[15] Note that the term primary group cohesion as applied here does not exclusively refer to bonds in small fighting units or 'cells,' but refers to bonds between those combatants that remain in regular contact.

[16] Note that while Wucherpfennig et al. (2012) and Cederman, Gleditsch and Buhaug (2012) focus on ethno-political power relations involving exclusion as sources of grievances, the elaborated mechanisms apply to grievances more generally, provided that their sources are attributed to the state.

And yet, individual-level commitment to a common cause (be this secession, revolution, the removal of an occupying force) and strong ties to immediate group members are not sufficient to ensure organizational integrity. The challenge of insurgent leaders is not just to mobilize their followers against a common enemy, but to instill and maintain strong ties to the organization across all ranks ('secondary cohesion'), and to sustain the conviction that theirs is the only true vehicle to political change. Indeed, if secondary cohesion is low, prospective leaders of defective factions might well conclude that peaks in fighting morale and incoming recruits in the wake of state repression may present windows of opportunity to launch their 'own' rebellion.[17]

As discussed in chapter 3, virtually all armed organizations rely on formal and informal institutions to socialize, discipline, and indoctrinate combatants according to the principles, norms, and goals of the organization as defined by the leadership. Institutions for discipline include mechanisms to reward and punish the (non-)compliance of combatants with specific rules, while socialization (for instance through shared training and combat experiences) and indoctrination (for example trough formal political education) aim to transform combatants' preferences, thereby reducing the need for constant in-group policing (Hoover Green, 2011; Wood, 2012) and increasing combatant cohesion (Staniland, 2010, 100f.; Oppenheim et al., 2012).[18]

The PIRA, as outlined above, relied partially on its youth wing, *Na Fianna Eireann* to socialize and educate prospective young volunteers in accordance with the values and principles of the Republican movement (Hamill, 2011; Gill and Horgan, 2013); at the same time, this organization also facilitated the screening and recruitment of young volunteers into the PIRA up to the early 1980s (Hamill, 2011, 85). The Peruvian Shining Path devoted major attention to the political education and ideological indoctrination of its cadres across all ranks. As Gorriti (1999, 29) writes on the formal military training of Shining Path's prospective military leaders at the eve of the war: "[T]he purpose of the Military School was not to saturate everyone in lethal technology (...) but rather to

[17]The defintion between primary and secondary cohesion is based on Siebold (2007,2011) and has to my knowledge been first applied to non-state armed organizations by Wood (2009, 2012). See chapter 3 for definitions.

[18]For definitions see chapter 3.

relate and overlap ideology with its military manifestation at every level."[19]

Just like armed organizations strive to transform combatant preferences in the sense of instilling norms that prioritize discipline and an application of violence that is consistent with the organization's norms and strategies (e.g., Gutiérrez Sanín, 2008; Wood, 2009; Wood, 2012; Hoover Green, 2011), it is in their primary interest to build institutions that create and sustain high levels of combatant commitment to the organization and its leadership. Such institutional arrangements will most typically consist of collective rituals,[20] formalized indoctrination, and ongoing political education that regularly emphasize the organization's principles, values, and long-term goals (e.g., Wood, 2009; Wood, 2012). Like other institutions, these arrangements are amenable to change over time.[21] One channel through which indiscriminate state violence may impair insurgent internal control is indeed through the disruption of institutional arrangements that forge and sustain combatants' 'secondary' cohesion, i.e., their attachment not only to immediate group members or a common cause (such as revolutionary change), but to the organization as a whole (Siebold, 2007; Siebold, 2011).

Cohesion at the organizational level is thus likely to be harmed by indiscriminate state violence through, first of all, the disruption of institutions that create and strengthen secondary cohesion among mid-level commanders and rank and file members. Damage inflicted on the insurgents' sources of support and information and the increased inflow of fresh recruits are likely to force insurgents to divert resources away from institutions such as regularized indoctrination and political education while at the same time increasing

[19] Another example is the Maoist insurgency in Nepal. Eck (2010), while primarily concerned with indoctrination as a means of mass mobilization and recruitment, argues for the case of Nepal that "Maoist leaders realized that continuous political indoctrination facilitated cohesion amongst the different individuals within the movement so that they all shared a common ideological background, thus deterring factionalization" (Eck, 2010, 43).

[20] On the role of collective rituals in generating secondary cohesion in state militaries, see Kenny (2011).

[21] As Gutiérrez Sanín (2008, 5) puts it with regards to organizational structures of armed groups more generally: "[T]he key to understanding different behaviors [of non-state armed groups] is the set of organizational devices that structure and organize the quotidian life of the fighters, and transform them in a given sense. These structures are inherently strategic, but also historical and contingent, because the [armed] groups do not have them as givens, but construct them in the quest to survive and grow. Armed groups do not design them too consciously, but they create them on the move, so to say, responding to urgent and many times literally life and death demands. This incremental process stabilizes and 'freezes' at some moment, expressing the past trajectory but at the same time determining in good measure the future one."

the demand for them.[22] The consequences, while not immediate, can be expected to be profound, as in the words of Gutiérrez Sanín, constant indoctrination is "a sine qua non for internal cohesion" (Gutiérrez Sanín, 2008, 186). That such institutions reduce the propensity of individuals to defect to competing organizations when presented with such options is corroborated by recent research. Oppenheim et al. (2012) find – based on survey data on ex-combatants in Colombia that allow them to exploit intra-organizational variation –, that exposure to indoctrination reduced the probability of individual side-switching from left-wing guerrilla organizations (FARC, ELN) to right-wing paramilitary groups (AUC).[23]

Second, state violence may have a detrimental effect on internal power-sharing arrangements (e.g., McLauchlin and Pearlman, 2012) and intra-organizational coordination (e.g., Lyall, 2009), which are both important determinants of institutional and strategic coherence even in cases where the mobility of subgroups is one of the central organizational principles.[24] The weakening of both secondary cohesion and organizational coordination poses severe challenges to a unified central command, which is sometimes reflected in patterns of insurgent violence (Wood, 2008, Wood, 2009; Wood, 2012). Wood (2008, 547, 542) for instance argues that the widening repertoire of insurgent violence in the case of the Sendero Luminoso insurgency in Peru was at least partially the conse-

[22]Note that this process may occur even if insurgent elites share a high ideological commitment; it may, however, contribute to its erosion, which Thaler (2012) rightly identifies as a relevant source of institutional change: "A breakdown in ideological commitment among elites will result in a loss of ideology's effects among lower-level individuals through indiscriminate recruitment, a failure to socialize recruits, and a loss of discipline as leaders set ideologically inconsistent examples" (Thaler, 2012, 549).

[23]Oppenheim et al. (2012) suggest that while this effect could theoretically be driven by socialization and the strengthening of group identities, the fact that they do not find an effect for participation in generic training activities points to the relevance of ideological content (Oppenheim et al., 2012, 22). Interestingly, however, they also find that individuals subject to discipline were also less likely to leave insurgent groups for paramilitary ones.

[24]As the former commander of the General Secretariat of the Governing Council of the highly mobile FARC stressed in an interview, constant exchange and direct contact was also important at higher levels of the hierarchy: "And then, when we founded the FARC, and [sic] adopted the strategy of deploying mobile guerrillas mostly with the personnel from El Pato and Guayabero. We chose this area because it was a strategic cordillera for us and difficult to control because it is situated among five departments. (...) But although they were mobile guerrillas, they had instructions to maintain contact and to operate according to the changing situation. There was a continual exchange of ideas and opinions among the leadership of each unit, those from Santa Isabel, Pato, Guayabero, and the Central Cordillera principally. And when it was necessary to convene a meeting to examine the military situation, or any other situation, then a site was agreed upon and the commanders used every means possible to arrive at the place of the meeting" Manuel Marulanda Vélez, interview from 1987 cited in Chernick (2007, 55).

quence of the weakened central control and communication across units that occurred as a result of the state's massive and largely indiscriminate counterinsurgency campaign.

Third, indiscriminate state violence tends to create, reveal, and deepen heterogeneous preferences over ideology and strategy in the leadership by pitting radical leaders against more moderate ones (e.g., Cederman, Gleditsch and Buhaug, 2012, 83). Radical elements within an organization might even be able to significantly profit from campaigns of indiscriminate violence if they manage to successfully exploit them to activate support for their demand for radical strategic change – including collective, concerted defection. This has been argued for instance for the case of the IRA in the late 1960s:

> "With the IRA seemingly in disarray but still with a functional youth wing and with active volunteers, the allegations that it had provoked the civil disturbances of 1969 that led to the violence of August are complicated (...) Along with the lack of capability that the IRA had in 1969, (...) the only rationale that republicans could have had for provoking violence would have been to create the circumstances to facilitate a split. In creating a situation that the republican leadership neither wanted nor was capable of responding to, but one that also demanded some sort of response, the radicals could legitimately claim they were being misguided by their leaders, break away from them and then move to seize the initiative." (Sanders, 2012, 39)

Although the spoiler literature has largely focused on how peace processes stimulate insurgent splits, dynamics of violent escalation often have similar effects. In the case of the IRA, the split into the Official IRA (OIRA) and the Provisional IRA (PIRA) was eventually triggered through internal disagreements about how to respond to the discrimination and victimization of Catholics in Northern Ireland (Gill and Horgan, 2013, 436f.).

Therefore, while indiscriminate state violence promotes recruitment and individual-level commitment to fight through grievances and group-level cohesion trough socializing experiences, it is likely to reveal divisions in the leadership of insurgent organizations about how to respond to state repression, to undermine institutions that underpin secondary cohesion, and to allow already radicalized elements to advance their cause.

In short, under conditions of indiscriminate state violence prospective leaders of deserting factions are not only more likely to emerge, but are also faced with a large pool

of potential volunteers eager to fight back against an abusive state, be it to avenge their loved ones or to increase their own physical security. Splintering organizations typically fiercely compete for new recruits. The split of the IRA into the OIRA and the PIRA in 1969/70, for instance, "was as much a battle among political entrepreneurs for control of the flood of potential new recruits as it was the fragmentation of a pre-existing organization" (Kenny, 2010, 539).[25]

And yet, the defining feature of splinter groups is precisely that the initial followers are *not* exclusively recruited 'from scratch', which is why organizational fragmentation is unlikely to emerge if cohesion is low across all levels. In the case of the abovementioned split of the IRA, while the PIRA did indeed attract the bulk of fresh recruits that aimed to join the Republican movement after the split, a substantial number of initial PIRA members had previously belonged to the 'old' organization (English, 2004, 174; Kenny, 2010, 539).[26]

Nascent splinter groups are typically led by coalitions of mid- to high-level commanders that will only take the risk of leading a concerted desertion if they can be fairly confident that their allies and subordinates will stay loyal when the moment comes. If cohesion was low from the small fighting unit up to the leadership and the organization as a whole, what we should see is the disbanding of armed groups and large-scale desertions of individuals, rather than the emergence of major splinter groups.[27] Concerted desertions of coalitions of groups that defect from the original organization should be

[25]Note that *selective* state violence will not have the effect of promoting insurgent recruitment and overstraining institutions that underpin secondary cohesion through screening and indoctrination. Surges of incoming recruits are unlikely to result from selective state violence. Instead, civilians can opt for collaboration with the incumbent or stay neutral to protect themselves, and violence-induced grievances and moral outrage are much less pronounced. Thus, under conditions of selective state violence, prospective leaders of splitting factions can be much less confident to grow quickly in size once defected. There are additional differences in the effects of selective violence. For instance, if violence is exclusively targeted at combatants and individual collaborators, the disruption of civilian networks should be much less severe, as not only surges in insurgent recruitment, but also large-scale refugee flows (Steele, 2009) and local militarization (see chapter 6) are less likely to occur. Whether and to which extent this implies that insurgents have more access to civilian collaboration – above and beyond the minimal support that can almost always be extracted from civilians (e.g., Wood, 2003, 17) – will depend on the distribution of territorial control, among other factors (Kalyvas, 2006).

[26]Kenny (2010, 539) estimates that about 50 percent of the IRA joined the PIRA during the split in 1969/70, while the remaining 50 percent stayed in what would become the OIRA.

[27]On the distinction between disintegration as the counterpart of cohesion and fragmentation as the counterpart of structural integrity see also Kenny, 2010, 535.

Table 5.1: The Impact of State Violence

| **Level** | **Mechanism** | **Outcome** |
|---|---|---|
| Individual | Grievances ↑<br>Security Considerations ↑ | Incentives to Fight ↑ |
| Group | Socializing Experiences ↑<br>Mobility & Social Uprooting ↑ | Primary Cohesion ↑ |
| Organization | Institutionalized Indoctrination ↓<br>Organizational Coordination ↓<br>Strategic Unity ↓ | Secondary Cohesion ↓ |

rare when unit-level cohesion is low across the board.[28]

Therefore, it is precisely the combination of a reinforcement of individual-level commitment, surges of fresh recruits, and strengthened primary cohesion on one side and the weakening of institutionalized indoctrination, strategic unity, and intra-organizational coordination on the other that, I argue, significantly enhances the prospects of success for defectors that aim to desert in concert to craft their own organization. These joint effects increase the risk of insurgent fragmentation.

Table 5.1 summarizes the mechanisms just discussed, and $H1_a$ and $H1_b$ summarize the empirical implications:

**H1**$_a$ Indiscriminate state violence increases the probability of insurgent fragmentation.

**H1**$_b$ Indiscriminate state violence increases the severity of insurgent fragmentation.

However, while indiscriminate state violence tends to negatively affect organizational unity, this effect will be mitigated if extant institutions that establish and reinforce commitment to the goals of the organization are strong and robust. When these institutions are strong and resilient, they are likely to significantly dampen the positive impact of state violence on the probability and severity of insurgent fragmentation. What, then, determines the strength of these institutions? While some authors have argued that the quality and robustness of cohesion-fostering institutions depend on the type of exogenous networks (Staniland, 2010) or is more generally the product of the strategic interactions

[28]This resonates with the study of Bearman (1991), who argues that "in armies unit solidarity may induce greater commitment to army goals, but not necessarily. If the collective is defined on a basis different from the military, soldiers may pursue ends quite different from those expected" (Bearman, 1991, 340).

of insurgents with state forces (Kenny, 2010), I argue that the institutional strength and resilience is primarily explained by the type of warfare that is being fought.[29]

Apart from studies directly interested in the structure of insurgent groups (e.g., Gutiérrez Sanín, 2008; Gutiérrez Sanín and Giustozzi, 2010), insurgent institutions have received close attention as explanatory variables in research devoted to explaining variation in violence against civilians in armed conflicts (e.g., Wood, 2009; Hoover Green, 2011; Wood, 2012).[30] The focus of this literature has been primarily on irregular wars, where the challenge of internal control is most relevant: High levels of internal control are indispensable to ensure restraint on behalf of the combatants when it comes to fighting efficiency and the treatment of civilians, both of which are necessary to survive the struggle against a militarily vastly superior state (e.g., Balcells and Kalyvas, 2012).[31] At the same time, the necessity to operate in small mobile units implied by irregular war complicates the task of insurgent leaders to constantly ensure discipline and cohesion across multiple hierarchy levels and subgroups (Gutiérrez Sanín, 2008; Wood, 2009; Wood, 2010; Hoover Green, 2011; Wood, 2012). Thus, while the incentives for maintaining strong internal control are especially strong under conditions of irregular war, the challenges to insurgent internal control are particularly strong as well.[32]

[29]Following the typology of Kalyvas (2005) and Kalyvas and Balcells (2010), civil wars can be distinguished according to the dominant warfare technologies, which are a product of the distribution of military power and equipment between competing actors.

[30]Thaler (2012) too can be counted in this category, although his interest lies on the content of insurgent ideologies in explaining patterns of insurgent violence, whereas institutions for indoctrination serve as 'transmission belts' between the ideology of leaders and rank and file members.

[31]Kalyvas (2005) and Kalyvas and Balcells (2010) identify three types of civil wars, based on how they are fought – the type of warfare or 'technology of rebellion' (Kalyvas and Balcells, 2010). Conventional warfare typically follows the implosion of empires and federal states or failed coups; it entails the direct confrontation of regular armies, both equipped with heavy weaponry. Irregular warfare, by contrast, is the consequence of military asymmetry; frontlines are lacking, as the weaker side (i.e., the insurgents) consistently avoids direct battle confrontation with the militarily superior state, instead opting for 'guerrilla' tactics such as sabotage and hit and run attacks. The third type, symmetric-nonconventional warfare, entails the confrontation of rival militias, typically in the weak of state implosion, where neither side relies on heavy weaponry, and the conflict is marked by military symmetry and often clear frontlines (Kalyvas, 2005, 426ff.). On insurgent institutions of civilian governance in irregular wars, see Arjona (2009*b*), on insurgent institutions for internal governance and preference change among combatants, see Hoover Green (2011).

[32]As Wood (2012) puts it: "Within an armed organization – particularly in the changing and often covert circumstances of irregular warfare – there are a series of relationships down the chain of command in which the superior officer attempts to influence the behavior of those below (...) [L]eaders attempt to control the violence of their combatants and whether they succeed in doing so depends on the strength of the group's institutions. Armed groups that adopt an irregular warfare strategy face this challenge in particularly sharp form: units may operate independently for significant periods of time with little

As a result, institutions that instill individual-level commitment to the larger organization and its long-term goals are often better developed in irregular wars than in conflicts where the distribution of military capabilities of the warring parties is more symmetric, as insurgent groups risk quickly faltering otherwise.[33]

Moreover, in irregular war, while civilian support is often indispensable, local ties are rarely a constant source of internal insurgent control, particularly under conditions of violent state repression. Instead, the constant mobility of combatant units as well as complete individual dedication of combatants to the organization typically inhibit regular personal contact with noncombatant communities outside of 'liberated' areas.[34] Personal contacts with noncombatants – even family members – may even be deliberately cut (Gutiérrez Sanín, 2008, 17).[35] Moreover, exposure to state violence may promote polarization among the local population and sometimes drastically reconfigures the social networks that initially may have provided a firm social base of insurgent organizations (Wood, 2008). For instance, as I will show in chapter 6, under certain circumstances indiscriminate state violence will not only promote insurgent, but also *counter*insurgent mobilization, which should complicate the consolidation of insurgent internal control through 'external' social networks even more.[36]

Therefore, when faced with a militarily highly superior state, the need for robust internal institutions that create and reinforce secondary cohesion, such as constant and regularized political education that sustains a coherent mobilization frame across the

direct contact with the superiors, with the result that superiors know little about the practices on the ground and have little opportunity to punish infractions" (Wood, 2012, 407f.). See also Wood, 2010, 313f.

[33]To consider again the example of the FARC: "In irregular armies, in general, the capacity of the leadership to monitor the rank and file is rather poor - especially in combat. (...) [O]ne can see why the only alternative at hand for the FARC was to promote the internalization of the group's norms, i.e., the transformation of the utility function of its warriors, and probably, they knew it almost from the beginning. In other words, the disciplinary effort is successful only because it is supported on norms, routines, drilling, discourse, combat, beside punishment" (Gutiérrez Sanín, 2008, 26f.).

[34]Staniland (2010, 93, 100f.) argues that 'endogenous' cohesion-building through institutionalized socialization and indoctrination in capable and resolved states is most likely to be successful when based on a bonding network as a social base. However, he too notes that "these exogenous previous networks are neither necessary nor sufficient for successful endogenous cohesion" (Staniland, 2010, 93).

[35]Gutiérrez Sanín (2008, 17) notes with regards to the FARC: "Family contacts are reduced to a minimum for security reasons – and, I suspect, to preserve internal discipline. Regular contact with the population is discouraged; it is seen as a serious security problem" Gutiérrez Sanín (2008, 17).

[36]However, note that under certain conditions indiscriminate state violence tends to increase insurgent territorial control (Kocher, Pepinsky and Kalyvas, 2011).

organization, should be particularly evident for insurgent leaders – even before armed conflict fully erupts –, as these institutions will increase the commitment of its members and subgroups to the organization as a whole in the face of high mobility, disrupted lines of communications across subgroups and severe state repression.[37] The Shining Path in Peru is just one example of an organization that invested heavily into the formal political education and indoctrination of its followers, years before the armed struggle against the government was launched. These efforts were not only limited to commanders and rank and file members, but institutionalized in civilian communities through 'popular schools' as well (Poole and Rénique, 1992, 40ff.).[38] Hypothesis $H1_c$ summarizes the empirical implication:

**H1**$_c$ The positive effect of indiscriminate state violence on the probability and severity of insurgent fragmentation is mitigated in irregular wars.

## 5.3 Data and Empirical Approach

### 5.3.1 Estimation Framework & Unit of Analysis

As the dependent variables are binary (occurrence) and ordinal (severity), I rely on logit and ordinal logit regressions. In order to control for observed heterogeneity between conflicts affected by one-sided violence and conflicts that are unaffected, I rely on covariate adjustment and entropy balancing. As described in chapter 4, entropy balancing is a procedure to preprocess the data in observational studies such that the 'treatment status' approximates independence from relevant confounders that potentially influence

[37] Note that the binary qualification as irregular war could be theoretically replaced by a continuous measure of state strength. At one side of the continuum, state strength is too high for high levels of insurgent cohesion to be fully achieved through endogenous processes (Staniland, 2010, 73); at the other side of the continuum, in a context of military symmetry – such as in symmetric nonconventional and conventional civil wars (Kalyvas and Balcells 2010) –, the incentives for insurgent leaders to engage in longterm institution building are reduced (see also Weinstein, 2007, 14f.). In other words, in case of a continuous measure, the relevance of strong insurgent institutions that endogenously forge cohesion should be highest at intermediate to high levels of coercive state strength.

[38] Importantly, while strong institutions certainly reinforce the role of ideology across all ranks, I do not assume that the proposed mechanism is limited to particular types of ideologies, such as Marxism (Balcells and Kalyvas, 2010). I believe that any type of strong mobilization frame, including ideologies based on religion or ethnicity, will have the effect of consolidating secondary cohesion, as long as strong institutions ensure ideological continuity and coherence across all ranks.

selection into treatment and the outcome variable (Hainmueller, 2012; Hainmueller and Xu, 2013). The basic assumption underlying this approach, *selection on observables*, also underlies the regression models.

The unit of analysis is the conflict dyad. Consequently, in terms of causal inference, the 'treated' cases are dyads with reported one-sided violence against civilians that caused 25 noncombatant deaths during at least one year, while dyads for which this type of violence was not reported'are treated as 'controls'. While ideally we could measure the exact time point of insurgent splintering, this has not been feasible due to data limitations. I restrict the analysis to dyads engaged in intra-state conflicts that meet the UCDP criteria, including a violently contested incompatibility and 25 or more battle-related deaths a year (Harbom, Melander and Wallensteen, 2008), and to dyadic conflict episodes that started during or after 1989 due to the time coverage of the one-sided violence data.[39] While in chapter 7, the unit of analysis will be the dyad-year or the dyad-spell, and censoring can be accounted for, this is not the case when the timing of the dependent variable is unknown. Thus, in order to mitigate selection bias, the analysis is restricted to dyadic conflicts that were terminated by 2003, when the coverage of my dataset ends.[40]

### 5.3.2 Key Variables

As a proxy for the main independent variable, indiscriminate state violence, I rely on a binary measure of one-sided violence, based on the UCDP One-sided Violence Dataset[41] (Eck and Hultman, 2007), an actor-year dataset on deadly attacks on civilians by governments and armed groups. These data are based on media reports and provide information on the unilateral use of armed force by governments and groups against unarmed persons resulting in at least 25 deaths per calendar year (Eck and Hultman, 2007; Kreutz, 2004; Kreutz, Eck, Wallensteen, Harbom, Högbladh and Sollen-

[39] 1-day coups are not included in the dataset.
[40] The conflicts in this dataset are thus a subset of the conflicts examined in chapter 7.
[41] Henceforth referred to as UCDP one-sided dataset; I used version 1.3, 2008.

berg, 2005).[42]

The UCDP one-sided violence data are, to be sure, no perfect measure of indiscriminate state violence, and there are indeed a number of caveats that need be be kept in mind when working with these data. However, I consider these data to be the best available indicator of indiscriminate state violence in a crossnational setting for several reasons:

First, the dataset's coverage and quality make it the first choice when it comes to the operationalization of the main independent variables. Alternative data on state repression, such as the information provided by the Political Terror Scale[43] or the CIRI Human Rights Data Project [44] are too general when it comes to my project, as I am interested in state violence against civilians in particular, including state violence that is short of mass killing (Valentino, Huth and Balch-Lindsay, 2004).

Second, while the UCDP one-sided violence data do not allow one to conclude with certainty that the killing of civilians occurred in an indiscriminate manner (as opposed to a selective one), it is important to keep in mind that it is the *perception* of state violence, rather than its 'true' nature, that determines its effect (Kalyvas, 2006, 190ff.). Moreover, even in cases where state violence is intended to be selective, chances are very high that innocent people will be the primary victims, as incumbent actors typically lack the high quality information needed for selective targeting (Kalyvas and Kocher, 2007; Kalyvas, 2006, 183ff.).[45]

My assumption is thus that media reports on acts of deadly and intentional violence against civilians that can, without ambiguity, be attributed to state agents – as required

[42]The data generation process entails the automated extraction of information on violent events from the Factiva News database. In a second step, this information is coded manually, resulting in an event data set, later aggregated into the actor-year dataset that is made publicly available on a yearly basis (Kreutz et al., 2005, 3f.). For those state and non-state actors that surpass the threshold of having killed at least 25 non-combatants in a given year, the dataset gives information about the country, the perpetrating actor and the total fatalities in high, best, and low estimates (Eck and Hultman, 2007; Kreutz et al., 2005).

[43]`http://www.politicalterrorscale.org/`

[44]`http://www.humanrightsdata.org/`

[45]This might be particularly true for early stages of armed conflicts. Staniland (2010), for instance, having closely investigated 26 armed groups in 9 armed conflicts, notes that "[i]n all of the cases studied in this dissertation, and consistently in the much broader historical literature, themes of surprise, unpreparedness, and organizational pathologies characterize initial counterinsurgent responses to nascent rebellions" (Staniland, 2010, 67, fn.119).

in the UCDP coding rules – will most likely be a) based on a very conservative estimate, given that fatality estimates in media reports are likely to be biased 'downwards' when it comes to human rights violations by state agents (Ball, 2005), and b) widely perceived as indiscriminate by other civilians.[46]

To capture the type of warfare, I rely on the codings of Kalyvas and Balcells (2010). As their list of civil wars is based on the (non-dyadic) dataset of Sambanis (2001), which also works with a higher fatality threshold than UCDP, the information in the coding notes of Kalyvas and Balcells (2010) was not sufficient to code all conflicts. A few dyads could tentatively be coded in addition, based on the coding notes of Cunningham, Gleditsch and Salehyan (2009*a*). This, however, still left a number of missing cases for which the warfare type remained uncoded (see table 5.2).

Table 5.2: Warfare Types

| Type | Frequency | Percent | Cum. Percent |
|---|---|---|---|
| Coups | 5 | 4.39 | 4.39 |
| SNC | 8 | 7.02 | 11.40 |
| Irregular | 34 | 29.82 | 41.23 |
| Conventional | 28 | 24.56 | 65.79 |
| Unclear | 39 | 34.21 | 100.00 |
| Total | 114 | 100.00 | |

As as substantial number of conflicts remained undefined and since 'irregular' is the primary category of interest, I refrained from creating a multi-value factor variable that includes all conflict types. Instead, I created a dummy variable that indicates whether the initial type of warfare qualifies as irregular for a given conflict or not. To mitigate the concern that the results may be distorted by these 'uncoded' cases, I ran all analyses

[46]When it comes to pro-government militia or death squad violence – examples of such actors are for instance the Janjaweed in Sudan or various actors in Colombia – I follow the UCDP criteria in not coding this as government violence. This is consistent with my interest in violence that will be perceived as indiscriminate, as the use of proxy actors often is more effective in generating the perception of selective violence (Kalyvas, 2006). Note that in case militias clearly act on behalf of the state, such as in joint attacks, militia violence is coded as government violence by the Uppsala conflict data program. The Janjaweed in Sudan are a good example of this coding rule: "Even though the regime in Khartoum deny any link to Janjaweed the tight relationship between the two actors are doubtless. For example the most common atrocity in Darfur is joint attacks by governmental troops and Janjaweed militia. In the UCDP coding these joint attacks are attributed to the government of Sudan whilst the attacks were Janjaweed acts on their own is to the Janjaweed", in: Uppsala Conflict Data Program (last access July 27, 2013), UCDP Conflict Encyclopedia: `http://www.ucdp.uu.se/gpdatabase/gpcountry.php?id=145&regionSelect=1-Northern_Africa`, Uppsala University.

that include this variable with the full set of cases (see table 5.3) and a reduced set that only included dyads for which the initial warfare type could be clearly identified (see table 5.5).

Table 5.3: Irregular Wars (full set)

| irregular | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | 80 | 70.18 | 70.18 |
| 1 | 34 | 29.82 | 100.00 |
| Total | 114 | 100.00 | |

Table 5.4: Irregular Wars (reduced set)

| irregular | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | 41 | 54.67 | 54.67 |
| 1 | 34 | 45.33 | 100.00 |
| Total | 75 | 100.00 | |

When it comes to the dependent variable, I measure both the occurrence and severity of insurgent fragmentation, the latter being based on the number of splinter organizations that broke away from a given insurgent organization. Once an organization splits from the original movement, splinters from the new organization do not affect the fragmentation measure of the original organization. By the severity of insurgent fragmentation, I refer to an ordinal measure that is based on the number of splinter organizations. Again, once an organization splits from the original movement, its is treated like a 'normal' organizations, and splinters from this new organization do not affect the fragmentation measure of the original organization. My measure of the severity of insurgent fragmentation is thus similar but not identical to Kenny's (2010, 537) measure of 'extensive fragmentation', defined as the number of splits that an organization endures over the whole period of its existence (including its formation in case of splinter groups), annualized to control for the duration of an organization's existence.[47] Unlike Kenny, I do not include splits through which an organization is created in the first place, and I refrain from normalizing the number of splits based on conflict duration due to endogeneity issues, which I will discuss in more detail in the empirical analysis.

[47]Kenny (2010) distinguishes between extensive and intensive fragmentation, the latter referring to the proportion of an organization's membership that splits (Kenny, 2010, 537).

The occurrence and severity of insurgent fragmentation are coded based on the UCDP Actor Dataset (Version 2.1-2011), a dataset that provides basic information on all actors included in UCDP's datasets on organized violence. For every insurgent group in the dyads relevant for my analysis, I coded whether there was one or more groups that split temporarily or permanently from the original rebel group to form an armed organization of their own. Splinter organizations are included if they ended up being involved in armed conflicts against the state or other organized armed violence that resulted in at least 25 battle-related deaths a year - in other words, if they were involved in non-state conflict against other armed groups, one-sided violence, and/or state-based conflict as defined by UCDP. The occurrence of insurgent fragmentation is thus operationalized through the emergence of at least one major splinter group, while the severity of insurgent fragmentation is measured as an ordinal measure based on the number of major splinters (no splinters, 1 splinter, more than 1 splinter), whereby 'major' refers to the fact that the splinter group itself is involved in organized violence that results in 25 deaths or more during at least one year.

Table 5.5 shows the distribution of the dependent variable across the conflict dyads that meet the selection criteria as outlined above. We can see that only two insurgent groups (1.76 %) were faced with more than one major splinter groups, while 10.5 % of all insurgent groups in the dataset had one significant split. Almost 90 % of all insurgent organizations in the dataset never underwent a major split. Hence, for this specific dataset, the ordinal measure (no splinters, 1 splinter, more than 1 splinter) perfectly overlaps with the actual number of splinters. As the number of splinter groups does not reveal information about the intensity of individual splits in the sense of how many members of an organization switch sides (Kenny, 2010), I nevertheless treat this count measure as ordinal.

### 5.3.3 Theoretically Relevant Confounders

In order to control for determinants of state violence and 'alternative explanations' of insurgent internal control, I include a number of theoretically relevant covariates (or

Table 5.5: Major Splinter Groups

| No. of Splinters | Frequency | Percent |
|---|---|---|
| 0 | 100 | 87.72 |
| 1 | 12 | 10.53 |
| 2 | 2 | 1.75 |
| Total | 114 | 100.00 |

'confounders'). With the exception of conflict duration, all control variables are measured prior to the onset of one-sided violence and during the first year (or first phase) of the conflict to avoid endogeneity issues and 'post-treatment bias' (King and Zeng, 2006).

### Insurgent Central Control

As discussed in the theory section, the structures of insurgent organizations vary considerably, from hierarchical armies to loose networks (e.g., Gutiérrez Sanín, 2008; Gutiérrez Sanín and Giustozzi, 2010). Gutiérrez Sanín (2008, 25) argues that whether an armed organization's structure is centralized and hierarchical or more network-structured will influence the level of desertions and fragmentation, and Asal, Brown and Dalton (2012) show that the leadership structure is indeed significantly related to organizational fragmentation in the case of ethnopolitical organizations. I therefore control for the initial level of internal central control, the degree to which the leadership exhibits control over the organization as measured by Cunningham, Gleditsch and Salehyan (2009*a*).

### Prior Insurgent Violence

I also include a variable that measures the use of one-sided violence by rebel groups (prior to the onset of indiscriminate state violence), since I assume the reactions of ordinary citizens to state violence and hence, the mobilization mechanisms theorized above, to be conditional on the exposure to prior insurgent violence.[48] Some studies find also that the use of violence by insurgent organizations themselves is directly related to the risk of organizational fragmentation (e.g., Asal, Brown and Dalton, 2012). I rely on the UCDP one-sided violence dataset (Eck and Hultman, 2007) to create a dummy variable that

[48] As outlined above, exposure to prior insurgent violence has also been found to be an important determinant of ethnic defection (Kalyvas, 2008*b*).

indicates the use of one-sided violence by rebel groups prior to the onset of indiscriminate state violence.

### Insurgent Recruitment from Excluded Ethnic Groups

Several authors have argued that the social base of insurgent groups is a powerful determinant of insurgent cohesion (e.g., Weinstein, 2007; Staniland, 2010). Most relevant for my study is the possibility that the embeddedness of insurgent organizations into certain types of preexisting social networks might determine the resilience of their socializing institutions in the face of state violence (Staniland, 2010). Staniland argues that it is the combination of external material support and a social base composed of tightly knit, supralocal, pre-existing networks that allows insurgent organizations to forge and sustain cohesion over long periods of time even when confronted with state repression. "These robust institutions can then endogenously recruit and socialize new recruits from outside the initial social base" (Staniland, 2010, 77). While I do not share all of the core assumptions of Staniland, as discussed in detail in section 2, the social base of insurgent groups is doubtlessly important.[49] To take this into account, I focus on the interaction between identities and institutions in operationalizing the propensity of preexisting networks to forge strong insurgent institutions that promote insurgent cohesion in the long run. While it is virtually impossible to find a perfect measure characterizing relationships between social networks and insurgent groups in cross-national studies, most macro-quantitative studies either simply ignore the social base of insurgent groups or include measures that refer to the country level instead of the group level, for instance the presence of ethnic cleavages or the level of ethno-linguistic diversity in a country (Fearon and Laitin, 2003; for an extensive critique of these approaches, see Cederman and Girardin, 2007). Instead, I follow Wucherpfennig et al. (2012) and Cederman, Gleditsch and Buhaug (2012) in focusing on the political dimensions of ethnicity. The ACD2EPR (Wucherpfennig et al., 2012) and the EPR-ETH (Cederman, Wimmer and Min, 2010)

[49] While this argument is convincing when it comes to the scope conditions delineated by Staniland - "where a government has large-scale coercive forces and the will to rapidly use them against nascent insurgent challenges" (Staniland, 2010, 15), it is less so when it comes to intra-state armed conflicts more generally.

data provide the finest (and at the same time most comprehensive) measures available to date when it comes to the social bases of individual insurgent groups. Furthermore, ethnic exclusion has shown to be a strong and robust predictor not only of civil war onset (Cederman and Girardin, 2007; Cederman, Wimmer and Min, 2010)[50], but also of conflict duration and outcomes (Cederman, Gleditsch and Buhaug, 2012; Wucherpfennig et al., 2012), a relationship that has been argued to be driven to a considerable extent by grievance-induced gains in individual commitment and group solidarity (Cederman, Gleditsch and Buhaug, 2012; Wucherpfennig et al., 2012). Moreover, Wucherpfennig (2011) finds competition between insurgent groups and 'spoiler dynamics' to be more likely when rebel organizations fight on behalf of excluded ethnic groups.

Lastly, and even in non-ethnic conflicts (cf. chapter 6), ethnicity is often one of the main 'profiling' attributes used in campaigns of indiscriminate state violence, and examples like the campaigns of indiscriminate state violence in Guatemala or Peru indeed suggest that, in environments where insurgent groups recruit from aggrieved ethnic groups and regimes are marked by a history of ethnic exclusion, counterinsurgent violence will be based on (ethnic) profiling and hence, be indiscriminate (see also Goodwin, 2001, 248).

Thus, I include a variable indicating whether the rebel group (but not the state side) of a conflict dyad recruits its members from an ethnic group that has been excluded from state power at least once between 1945 and 1989. The coding of this variable is based on the ACD2EPR dataset (Wucherpfennig et al., 2012)[51] and the Ethnic Power-Relations Dataset EPR-ETH[52] (Cederman, Wimmer and Min, 2010).[53] The variable specifically measures whether insurgent groups (but not state forces) recruit from ethnic groups that have been excluded from state power in the past.[54]

[50] On the relationship between political and economic inequalities and the risk of civil war onset, see Cederman, Gleditsch and Weidmann (2011).

[51] Version 1.2

[52] Version 2

[53] The ACD2EPR and the EPR-ETH data were both downloaded from the `http://www.icr.ethz.ch/data` [most recent access March 13, 2013] and correspond to the GrowUp Research Front End (RFE) release 1.0.

[54] Note that I depart from Wucherpfennig (2011) in that I do not code whether rebel groups claim to fight on behalf of ethnic groups. Such a claim is not necessary to trigger the dynamics described in this paragraph and exemplified tragically in cases such as El Salvador, Guatemala, and Peru.

### Rebel Support

Several authors argue that the access to external support has a decisive influence on patterns of insurgent cohesion and internal control, although the theories diverge in whether they predict a negative (Weinstein, 2007) or positive (Staniland, 2010) effect on insurgent cohesion. External support for insurgent organizations may also influence the level of threat they pose to the regime, both by increasing their material capabilities as well as information asymmetries, hence also potentially influencing dynamics of violence (e.g., Valentino, Huth and Balch-Lindsay, 2004). I include a variable measuring whether an insurgent group received (explicit or alleged) external support at the onset of the conflict (Cunningham, Gleditsch and Salehyan, 2009*a*).[55] Both military and non-military sources of support are included.

### Relative Fighting Capacity

Similar to the theoretical argument about the type of warfare, the relative fighting capacity is another theoretically relevant confounder. The capability of insurgent forces to challenge the state in direct confrontations shapes the strategic environment of the armed competition, including the incentives of state forces to employ violence indiscriminately (Valentino, Huth and Balch-Lindsay, 2004). It also determines the incentives of insurgents to enlarge their ranks and to build large, cohesive organizations (e.g., Weinstein, 2007). This variable is coded 0 if the relative fighting capacity of insurgent is rated 'low' in Cunningham, Gleditsch and Salehyan (2009*a*), and 1 otherwise.[56].

### Insurgent Territorial Control

I also include a measure of initial territorial control. Territorial control is arguably one of the most important determinants of civilian collaboration (Wood, 2003*a*; Kalyvas, 2006), insurgent recruitment and defection (e.g., Gates, 2002; Arjona and Kalyvas, 2007; Kalyvas, 2008*b*), the capacity of insurgent organizations to evade state violence and to

[55] Version v3.3., March 2012.

[56] 'Otherwise' here refers to 'high', 'moderate', and 'unclear'. Version v3.3., March 2012.

provide protection (e.g., Goodwin, 2001), both warring parties' capacity to use violence selectively (Kalyvas, 2006), as well as one the main direct determinants of insurgent fragmentation according to Woldemariam (2011). I rely on the dataset of Cunningham, Gleditsch and Salehyan (2009*a*)[57] and include a dummy variable that measures whether the rebel group controls territory in the first stage of the conflict. The variable is coded 1 in case the insurgents do control territory, and 0 otherwise (no territorial control/unclear).

**Previous Conflict Activity**

I include a dummy variable that indicates whether a given conflict dyad had been active in the past, prior to the conflict episode included in this dataset. In essence, this variable indicates whether this is a 'new' or 'recurring' conflict, and hence, is a proxy for potential unobserved confounders associated with the intractability of the conflict as well as social and institutional legacies from previous conflict episodes. The indicator for previous conflict activity is based on Cunningham, Gleditsch and Salehyan (2009*a*).[58]

**Conflict Duration**

Whether or not not conflict duration should be included as an additional confounder is a difficult question that introduces the trade-off between avoiding omitted variable bias on one side and post-treatment bias on the other (King, 2010; King and Zeng, 2006; King and Zeng, 2007): On the one hand, conflict duration is one plausible determinant of insurgent fragmentation. For instance, Jordan (2009) shows for the case of selective violence against leaders of terrorist organizations that organizational age is a strong predictor of resilience. Time since conflict onset could also have an influence on the risk of indiscriminate state violence. This implies that this variable should be included in order to avoid omitted variable bias. On the other hand, however, as will be seen in chapter 7, state violence significantly affects the conditional probability of conflict duration and termination. This would point to the exclusion of this variable to avoid post-treatment

[57] Version v3.3., March 2012.
[58] Version v3.3., March 2012.

bias, as the effect of state violence on insurgent cohesion might at least partly work through its effect on conflict duration.[59] Also, contrary to chapter 7, the dataset on insurgent fragmentation includes aggregated dyadic conflicts (instead of dyad-years of dyad-spells), which significantly reduces the possibilities to model time-dependent dynamics. To deal with this trade-off, which is in essence unsolvable (King, 2010), I report all models with this variable included and excluded.

## 5.4 Results

I now turn to the results and start by discussing the influence of state violence on the probability of insurgent fragmentation (and different levels thereof) across all 114 conflict dyads in the dataset.

The mean, variance, and skewness for the raw data and the results of the entropy balancing for all covariates are shown in table 5.6. For all results reported in this section that are based on entropy preprocessing, the tolerance level was set to 0.1 as the maximum deviation from the moment condition in order to ensure convergence (Hainmueller, 2012; Hainmueller and Xu, 2013).[60]

Table 5.7 shows the results of logistic and ordinal logistic regressions with and without entropy balancing. In the logistic regressions (models I, II and V), the risk of fragmentation occurrence is estimated, the dependent variable measuring whether at least one major splinter group emerged that broke away from the non-state actor of a given dyad. In models II, IV, and VI, the severity of fragmentation is the dependent variable, an ordinal measure based on the number of major splinter groups (0, 1, 2). Note that unlike in the binary logit models, in the ordinal logit models cutpoints are estimated instead of a constant. The cutpoints refer to the points on an unobserved latent variable that differentiate the observed categories from each other, all covariates being zero.[61] The

[59] 'Post-treatment bias' refers to the problem that by controlling for factors that are not prior to our independent variable of interest, we might 'control away' the variance associated with the very effect we are interested in (King and Zeng, 2006; King and Zeng, 2007; King, 2010).

[60] Note that this tolerance level implies that the deviation from the mean is allowed to be bigger than in the analysis presented in chapter 7, where the number of cases is larger and hence, there is more information available.

[61] It is necessary to assume the intercept to be 0 in order to identify the model (Long and Freese, 2006,

Table 5.6: Entropy Balancing

| Before: Without entropy weighting | 'Treated' | | | 'Control' | | |
|---|---|---|---|---|---|---|
| | mean | variance | skewness | mean | variance | skewness |
| Prior Insurgent Violence | .7179 | .2078 | -.9687 | .06667 | .06306 | 3.474 |
| Rebel Support | .5897 | .2483 | -.3649 | .4533 | .2512 | .1875 |
| Duration | 3.59 | 6.038 | 1.023 | 2.6 | 3.973 | 1.532 |
| Recr. from Excl. Ethnic Groups | .641 | .2362 | -.588 | .4933 | .2533 | .02667 |
| Previously Active | .1538 | .1336 | 1.919 | .1067 | .09658 | 2.548 |
| Rel. Fighting Capacity | .4359 | .2524 | .2585 | .4667 | .2523 | .1336 |
| Ins. Central Control | .9231 | .07287 | -3.175 | .8533 | .1268 | -1.998 |
| Ins. Terr. Control | .4359 | .2524 | .2585 | .28 | .2043 | .98 |
| After: With entropy weighting | 'Treated' | | | 'Control' | | |
| | mean | variance | skewness | mean | variance | skewness |
| Prior Insurgent Violence | .7179 | .2078 | -.9687 | .7114 | .2081 | -.9329 |
| Rebel Support | .5897 | .2483 | -.3649 | .5893 | .2453 | -.3629 |
| Duration | 3.59 | 6.038 | 1.023 | 3.577 | 3.875 | .3964 |
| Recr. from Excl. Ethnic Groups | .641 | .2362 | -.588 | .6359 | .2347 | -.5648 |
| Previously Active | .1538 | .1336 | 1.919 | .152 | .1307 | 1.938 |
| Rel. Fighting Capacity | .4359 | .2524 | .2585 | .4373 | .2494 | .2529 |
| Ins. Central Control | .9231 | .07287 | -3.175 | .9205 | .07413 | -3.11 |
| Ins. Terr. Control | .4359 | .2524 | .2585 | .4354 | .2491 | .2607 |

Results from entropy balancing; tolerance level: 0.1.

parallel regression assumption underlying the ordinal logit equations implies that one coefficient is estimated for all outcome categories (Long and Freese, 2006, 183ff.).[62]

Models I and II show the results based on entropy balancing only, while models V and VI control for the remaining variation by including the same variables as covariates that are used to achieve balance. Models III and VI rely exclusively on regression adjustment. The results in table 5.7 consistently show across all models, regardless of whether we measure the dependent variable in a binary or ordinal way, that state violence significantly increases the probability that insurgent organizations will fragment.

As outlined above in the data section, one of the potential problems of this model is that conflict duration may be endogenous to the dynamics of state violence and insurgent fragmentation. Figure 5.1 plots the predicted probability (based on model III in table 5.7) of insurgent fragmentation against conflict duration (in years), while the remaining

198).

[62]The parallel regression assumption (or proportional odds assumption) is the assumption that the relationships between all categories of the dependent variable are the same, or in other words, that the probability curves of the different outcomes only differ in being shifted to the left or right on the x-axis. Thus, only one coefficient needs to be estimated to characterize the relationship between each of the outcome categories and all the others combined (Long and Freese, 2006, 197ff.).

Table 5.7: State Violence and Insurgent Fragmentation I

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| State Violence (0/1) | 2.459+ | 2.449+ | 1.762* | 1.639** | 2.894* | 2.766* |
| | (1.264) | (1.264) | (0.686) | (0.633) | (1.385) | (1.353) |
| Rebel Support | | | -1.165 | -1.079 | -0.479 | -0.405 |
| | | | (0.727) | (0.682) | (1.171) | (1.144) |
| Duration (Years) | | | 0.291* | 0.271* | 0.129 | 0.113 |
| | | | (0.144) | (0.131) | (0.217) | (0.214) |
| Prior Insurgent Violence | | | -1.922* | -1.721+ | -1.667+ | -1.542 |
| | | | (0.955) | (0.915) | (0.986) | (0.966) |
| Excl. Ethnic Recr. | | | 0.949 | 0.960 | 1.218 | 1.185 |
| | | | (0.785) | (0.759) | (1.249) | (1.243) |
| Previously Active | | | 1.094 | 1.126 | 0.312 | 0.458 |
| | | | (0.933) | (0.952) | (1.314) | (1.311) |
| Rel. Fighting Capacity | | | 0.162 | 0.112 | 0.571 | 0.467 |
| | | | (0.677) | (0.650) | (1.008) | (0.987) |
| Ins. Central Control | | | -0.230 | -0.179 | -1.245 | -1.114 |
| | | | (1.193) | (1.182) | (1.604) | (1.588) |
| Ins. Terr. Control | | | 0.018 | 0.037 | -0.368 | -0.291 |
| | | | (0.635) | (0.620) | (1.082) | (1.070) |
| Constant | -3.979*** | | -3.300** | | -3.517 | |
| | (1.193) | | (1.160) | | (2.245) | |
| Cut 1 | | 3.975*** | | 3.323** | | 3.589 |
| | | (1.193) | | (1.173) | | (2.275) |
| Cut 2 | | 5.923*** | | 5.546*** | | 5.693* |
| | | (1.453) | | (1.293) | | (2.443) |
| Log-Likelihood | -21.925 | -25.424 | -35.430 | -41.459 | -18.519 | -22.355 |
| Wald $\chi^2$ | 6.491644 | 6.430875 | 18.95303 | 20.49427 | 13.3038 | 12.56904 |
| N | 114 | 114 | 114 | 114 | 114 | 114 |
| Weights | Yes | Yes | No | No | Yes | Yes |

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001; (robust) standard errors in parentheses.
Models I, III, V: binary logit; models II, IV, VI: ordinal logit.
Weights based on entropy balancing.

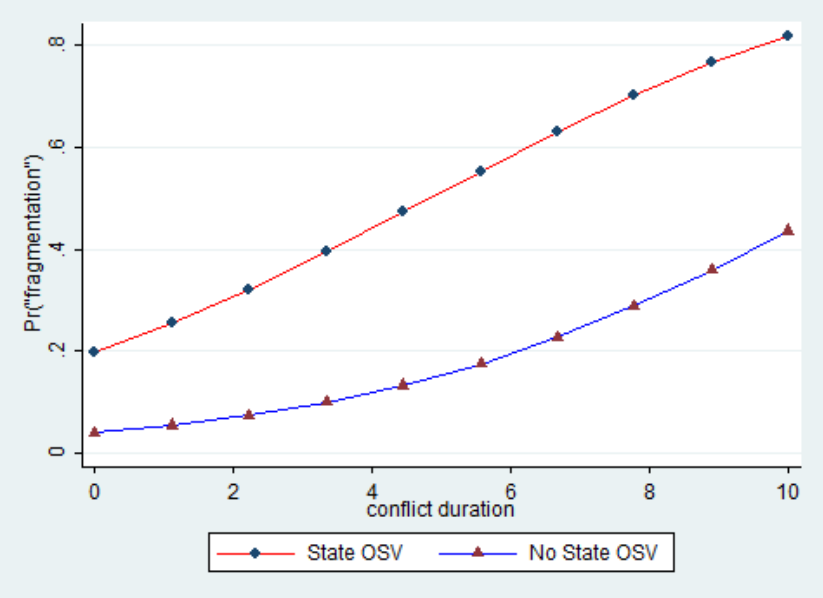


Figure 5.1: Conflict Duration and Insurgent Fragmentation

variables are held at their median values. While this graphs reveals nothing about causality, we can see that conflict duration and the probability of insurgent fragmentation are positively correlated, both under conditions of one-sided state violence and where one-sided state violence is absent. This points to a potential trade-off between post-treatment bias and omitted variable bias (King, 2010). Table 5.8 shows the results when the analysis reported above is repeated, but with the duration variable excluded. The coefficients are slightly smaller in these models, but still point to a positive and statistically significant (0.1 and 0.05 levels) influence of state violence on insurgent fragmentation. The reported results are almost identical and lead to the same conclusions if we include the variable identifying irregular wars in the entropy balancing and/or as control variable (see tables 5.14 and 5.15 in the appendix). This leads to the conclusion that both $H1_a$ and $H1_b$ are empirically supported, and that the results are robust.

Tables 5.9 and 5.10 summarize the discrete changes in the predicted probabilities of the binary dependent variable for model III in table 5.7 and model III in 5.8 (Long and Freese, 2006); specifically, the tables report the predicted probabilities for insurgent fragmentation under the conditions of exposure to state violence and the absence thereof when all covariates are held at their mean values. The median values are 0 for *Relative Fighting Capacity, Previously Active, Territorial Control,* and *Prior Insurgent*

Table 5.8: State Violence and Insurgent Fragmentation II

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| State Violence (0/1) | 2.360+ | 2.349+ | 1.694* | 1.594* | 2.779* | 2.664* |
| | (1.211) | (1.211) | (0.709) | (0.656) | (1.327) | (1.300) |
| Rebel Support | | | -0.624 | -0.586 | -0.206 | -0.166 |
| | | | (0.659) | (0.636) | (1.043) | (1.019) |
| Prior Insurgent Violence | | | -1.709* | -1.564+ | -1.622+ | -1.516 |
| | | | (0.859) | (0.835) | (0.960) | (0.945) |
| Excl. Ethnic Recr. | | | 0.996 | 0.993 | 1.255 | 1.216 |
| | | | (0.746) | (0.724) | (1.237) | (1.229) |
| Previously Active | | | 0.911 | 0.955 | 0.349 | 0.489 |
| | | | (0.889) | (0.932) | (1.288) | (1.287) |
| Rel. Fighting Capacity | | | 0.069 | 0.011 | 0.503 | 0.407 |
| | | | (0.642) | (0.626) | (1.005) | (0.984) |
| Ins. Central Control | | | 0.065 | 0.106 | -0.962 | -0.863 |
| | | | (1.132) | (1.107) | (1.500) | (1.487) |
| Ins. Terr. Control | | | 0.151 | 0.183 | -0.339 | -0.260 |
| | | | (0.686) | (0.678) | (1.072) | (1.063) |
| Constant | -3.880*** | | -2.859** | | -3.409 | |
| | (1.137) | | (0.935) | | (2.141) | |
| Cut 1 | | 3.875*** | | 2.904** | | 3.486 |
| | | (1.137) | | (0.957) | | (2.169) |
| Cut 2 | | 5.821*** | | 5.070*** | | 5.570* |
| | | (1.405) | | (1.031) | | (2.338) |
| Log-Likelihood | -22.214 | -25.748 | -37.270 | -43.140 | -18.936 | -22.770 |
| $\chi^2$ | 6.238193 | 6.177388 | 12.94565 | 14.30855 | 12.79447 | 12.1339 |
| Weights | Yes | Yes | No | No | Yes | Yes |

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001; (robust) standard errors in parentheses.
Models I, III, V: binary logit; models II, IV, VI: ordinal logit.
Weights based on entropy balancing.

*Violence*, 1 for *Recruitment from Excluded Ethnic Groups* and *Insurgent Central Control*, and 0.5 for *Rebel Support* (the non-integer median value on this variable is due to the same number of cases with and without rebel support) and, for table 5.9, 2 for *Conflict Duration*.

Table 5.9: Predicted Probabilities, Model IIIa

| State OSV | | |
|---|---|---|
| | Pr (y\|x) | 95% CI |
| Pr(y=1\|x) | 0.3058 | [-0.0522, 0.6637] |
| Pr(y=0\|x) | 0.6942 | [ 0.3363, 1.0522] |
| **No State OSV** | | |
| | Pr (y\|x) | 95% CI |
| Pr(y=1\|x) | 0.0703 | [-0.0336, 0.1742] |
| Pr(y=0\|x) | 0.9297 | [ 0.8258, 1.0336] |
| Changes in Pr(y=1) | | |
| x: 0 -> 1 | | |
| 0.2355 | | |

Covariates at median values.
Conf. intervals computed by delta method.

Table 5.9 reveals that according to model III in table 5.7, indiscriminate state violence, operationalized as the occurrence of one-sided violence by state forces, increases the probability of insurgent fragmentation, operationalized as the emergence of at least one major splinter group, by about 24 percent. If we leave the duration variable out of the equation, the estimated effect of state violence is even bigger. Based on model III in table 5.8, table 5.10 shows that indiscriminate state violence increases the probability of insurgent fragmentation by about 29 percent.

However, as argued in the theory section ($H1_c$), the effect of state violence on insurgent fragmentation should vary across different types of conflict. Based on the coding of warfare types as reported in table 5.2 above, I use a dummy variable that identifies irregular conflicts.

Table 5.11 gives a closer look into the heterogeneous effect of state violence – in particular, how state violence effects insurgent fragmentation in irregular wars. Note that in contrast to the previous models, in all models that evaluate the interaction effect of state violence and the warfare type, I do *not* rely on entropy balancing, as most of the other covariates are potentially endogenous to the initial type of warfare,

Table 5.10: Predicted Probabilities, Model IIIb

| State OSV | | |
|---|---|---|
| | Pr (y\|x) | 95% CI |
| Pr(y=1\|x) | 0.3974 | [ 0.0155, 0.7794] |
| Pr(y=0\|x) | 0.6026 | [ 0.2206, 0.9845] |
| **No State OSV** | | |
| | Pr (y\|x) | 95% CI |
| Pr(y=1\|x) | 0.1081 | [-0.0141, 0.2304] |
| Pr(y=0\|x) | 0.8919 | [ 0.7696, 1.0141] |
| Changes in Pr(y=1) | | |
| x: 0 -> 1 | | |
| 0.2893 | | |

Covariates at median values.
Conf. intervals computed by delta method.

and balancing would therefore aggravate the potential post-treatment bias induced by covariate adjustment.[63] While this is not a substantial problem when we include this variable in the entropy balancing or as a simple control variable, such as in chapter 7 or in tables 5.14 and 5.15, it could be an issue if we try to evaluate the effect of this variable, as we could 'control away' its effects.

Columns I, III, and V report the results for the binary logit models and columns II, VI and VI for the ordinal logit models. The models further differ with regards to the variables and cases that are included in the analysis: models I and II include all cases, with irregular wars coded 1 on the respective variable and all other conflicts coded zero (symmetric nonconventional and conventional conflicts, coups, and unclear cases). Models III and IV include the duration variable in addition. Models V and VI drop all cases for which the warfare type could not be conclusively determined, while models VII and VIII additionally drop conflicts that were classified as coups.

While both state violence and irregular warfare increase the probability of insurgent fragmentation, the interaction of the two variables has a negative effect. The negative sign of the interaction coefficient suggests that state violence increases the probability of insurgent fragmentation less in irregular wars. This result supports $H1_c$ and is robust to

[63] Table 5.16 in the appendix illustrates this point: Very much in line with the assumption that the type of warfare is prior to some of the other crucial covariates, we lose significance in the specifications where entropy balancing is combined with covariate adjustment as soon as the warfare type is included, while the coefficients' direction is consistent with the results reported below.

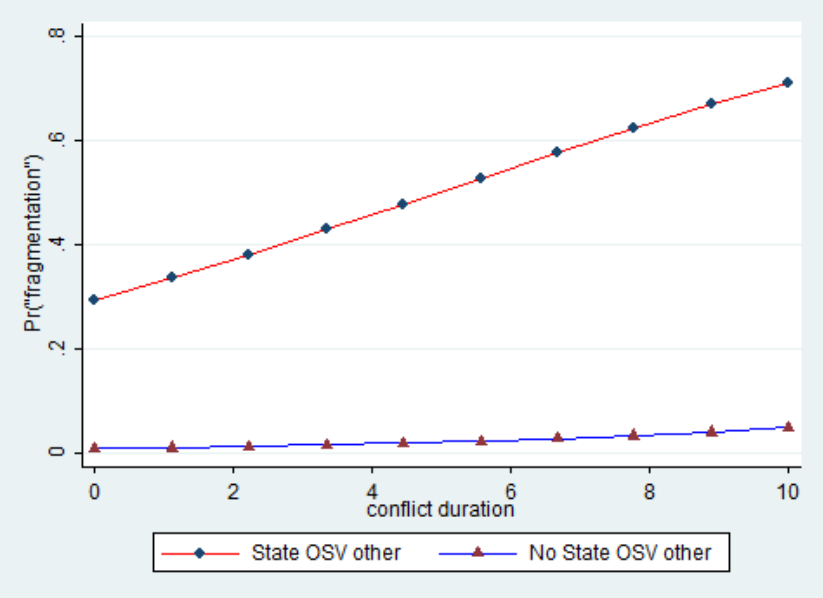


Figure 5.2: Insurgent Fragmentation in Non-Irregular Wars I

all model specifications. This dramatic difference in the effect of state violence between irregular and non-irregular conflicts is also evident when we illustrate the predicted probabilities by plotting them against conflict duration while all other variables are held at their mean values. Graph 5.2 does this for non-irregular and graph 5.3 for irregular conflicts, based on model V in table 5.11. The graphs illustrate that in non-irregular conflicts exposed to one-sided state violence, the probability of insurgent fragmentation dramatically increases over time. In irregular conflicts, by contrast, state violence still increases the risk of insurgent fragmentation, but the effect is much smaller.

Tables 5.17 and 5.18 in the appendix show the same specifications with interactions that include dummy variables identifying conventional and symmetric nonconventional conflicts. We can see that the positive effect of state violence on the probability of insurgent fragmentation is not as robust when we single out these conflicts.[64]

How 'big' are these effects substantially? Based on model V in table 5.11, table 5.12 gives the predicted probability of insurgent fragmentation with and without one-sided state violence for non-irregular conflicts, while table 5.13 does the same for irregular wars. We can see that state violence increases the probability of insurgent fragmentation

[64]Note that there is only a small number of symmetric nonconventional conflicts in the dataset and that the standard errors in the ordinal logit models in table 5.18 have to be interpreted with caution, as 3 observations are completely determined.

Table 5.11: State Violence and Insurgent Fragmentation III

| | I | II | III | IV | V | VI | VII | VIII |
|---|---|---|---|---|---|---|---|---|
| State Violence | 3.716** | 3.545** | 3.676** | 3.467** | 3.862** | 3.498** | 3.707** | 3.355** |
| | (1.267) | (1.211) | (1.251) | (1.198) | (1.419) | (1.245) | (1.358) | (1.206) |
| State Violence x Irregular | -3.591* | -3.524* | -3.177* | -3.119* | -3.146+ | -2.984+ | -3.108+ | -2.938+ |
| | (1.612) | (1.526) | (1.584) | (1.527) | (1.801) | (1.660) | (1.796) | (1.647) |
| Irregular | 3.844** | 3.723** | 3.729** | 3.584** | 2.923* | 2.684+ | 2.655+ | 2.444+ |
| | (1.253) | (1.212) | (1.230) | (1.220) | (1.404) | (1.415) | (1.494) | (1.455) |
| Rebel Support | -1.116 | -1.024 | -1.555+ | -1.377+ | -1.821+ | -1.578* | -1.565 | -1.367 |
| | (0.804) | (0.768) | (0.796) | (0.732) | (0.932) | (0.792) | (0.998) | (0.855) |
| Prior Ins. Violence | -1.675+ | -1.510+ | -1.776+ | -1.560+ | -1.829+ | -1.525 | -1.893+ | -1.596+ |
| | (0.892) | (0.890) | (0.939) | (0.921) | (1.015) | (0.940) | (1.025) | (0.950) |
| Excl. Ethnic Rec. | 1.043 | 1.052 | 1.147+ | 1.144+ | 0.756 | 0.768 | 0.582 | 0.613 |
| | (0.698) | (0.670) | (0.685) | (0.652) | (0.796) | (0.748) | (0.853) | (0.802) |
| Previously Active | 1.106 | 1.007 | 1.285 | 1.168 | 1.709 | 1.576 | 1.736 | 1.594 |
| | (1.057) | (1.022) | (1.057) | (1.022) | (1.352) | (1.308) | (1.385) | (1.334) |
| Rel. Fighting Capacity | 1.279 | 1.116 | 1.512+ | 1.325+ | 1.191 | 0.929 | 1.015 | 0.775 |
| | (0.803) | (0.777) | (0.784) | (0.774) | (0.839) | (0.858) | (0.893) | (0.874) |
| Ins. Central Control | -1.400 | -1.260 | -1.494 | -1.337 | -1.250 | -1.037 | -1.131 | -0.932 |
| | (1.315) | (1.288) | (1.433) | (1.402) | (1.866) | (1.841) | (1.736) | (1.705) |
| Ins. Terr. Control | 0.396 | 0.365 | 0.118 | 0.094 | 0.033 | 0.052 | 0.194 | 0.205 |
| | (0.864) | (0.811) | (0.856) | (0.794) | (1.024) | (0.939) | (1.030) | (0.938) |
| Duration (Years) | | | 0.256 | 0.220 | 0.178 | 0.151 | | |
| | | | (0.160) | (0.144) | (0.183) | (0.162) | | |
| Constant | -4.123*** | | -4.809*** | | -3.622* | | -2.781* | |
| | (1.050) | | (1.424) | | (1.657) | | (1.228) | |
| Cut 1 | | 4.126*** | | 4.706*** | | 3.536* | | 2.803* |
| | | (1.054) | | (1.341) | | (1.567) | | (1.218) |
| Cut 2 | | 6.444*** | | 7.063*** | | 5.962*** | | 5.226*** |
| | | (1.133) | | (1.503) | | (1.730) | | (1.319) |
| Log-Likelihood | -30.999 | -37.067 | -29.961 | -36.239 | -27.401 | -33.681 | -27.600 | -33.798 |
| $\chi^2$ | 21.60334 | 25.5765 | 26.15369 | 31.33877 | 17.87311 | 23.13716 | 16.20077 | 22.93414 |
| Weights | No | No | No | No | No | No | No | No |
| N | 114 | 114 | 114 | 114 | 75 | 75 | 70 | 70 |

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001; robust standard errors in parentheses.

Models I, III, V, VII: logit; models II, IV, VI, VIII: ordinal logit.

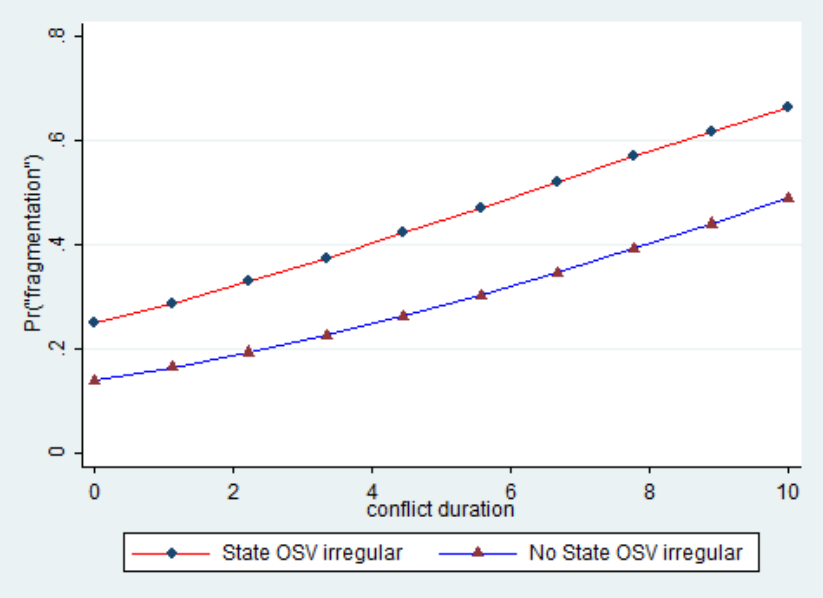


Figure 5.3: Insurgent Fragmentation in Irregular Wars I

by about 35% in non-irregular conflicts, but only by about 13% in irregular conflicts.

Table 5.12: Pred. Prob., Model V, Non-Irregular Conflicts

| | State OSV | |
|---|---|---|
| | Pr (y\|x) | 95% CI |
| Pr(y=1\|x) | 0.3709 | [-0.0948, 0.8122] |
| Pr(y=0\|x) | 0.6291 | [-0.8122, 0.0948] |
| | No State OSV | |
| | Pr (y\|x) | 95% CI |
| Pr(y=1\|x) | 0.0122 | [-0.0184, 0.0429] |
| Pr(y=0\|x) | 0.9878 | [ 0.9571, 1.0184] |
| | Changes in Pr(y=1) | |
| | x: 0 -> 1 | |
| | 0.3587 | |

Covariates at median values.
Conf. intervals computed by delta method.

The graphs 5.2 and 5.3 also vividly illustrate the higher probability of insurgent fragmentation in irregular wars compared to non-irregular ones. Given the theoretical assumption of stronger institutions that promote and sustain secondary cohesion, the positive effect of irregular war might seem stronger than expected. However, the results do make sense in light of the fact that the dependent variable is measured as the emergence of *major* splinter groups that qualify themselves as key actors in conflict dynamics. Such actors are less likely to emerge as splinters from a group that has been small or very

Table 5.13: Pred. Prob., Model V, Irregular Conflicts

| State OSV | | |
|---|---|---|
| | Pr (y\|x) | 95% CI |
| Pr(y=1\|x) | 0.3206 | [-0.3602, 0.6266] |
| Pr(y=0\|x) | 0.6794 | [-0.6266, 0.3602] |
| **No State OSV** | | |
| | Pr (y\|x) | 95% CI |
| Pr(y=1\|x) | 0.1874 | [-0.1316, 0.5064] |
| Pr(y=0\|x) | 0.8126 | [ 0.4936, 1.1316] |
| Changes in Pr(y=1) | | |
| x: 0 -> 1 | | |
| 0.1332 | | |

Covariates at median values.
Conf. intervals computed by delta method.

fragmented in the first place, as is often the case in symmetric nonconventional wars.[65] A potential explanation for the lower risk of fragmentation in conventional civil wars could be due to the fact that strong chains of command are easier to ensure in armed groups that resemble state militaries. In irregular war, by contrast, the constant necessity to operate in small, mobile units puts immense pressures on the structural unity of armed organizations. Along with the imperative for discipline, this has been argued to be one of the main reasons for the higher emphasis of insurgents on high-quality institutions in irregular wars. At the same time, it is also a potential explanation for the higher 'baseline' risk of insurgent fragmentation in these conflicts.

## 5.5 Discussion and Conclusion

In this chapter I have investigated one neglected mechanism through which state violence influences the dynamics of civil war duration and termination. I have argued that indiscriminate state violence has a positive effect on the probability and severity of insurgent fragmentation through the combined effect of several mechanisms: On the one hand, indiscriminate state violence tends to stimulate insurgent mobilization and to strengthen both individual-level motivations to fight and group-level cohesion. On the

[65]Note that symmetric non-conventional and low-intensity conflicts presumably compose the bulk of cases for which the warfare type remains unidentified. The graphs look very similar if we include or exclude these cases, i.e., whether we base graphs on model III or model V in table 5.11. For model III, see graphs 5.4 and 5.5 in the appendix.

other hand, one-sided state violence tends to promote divisions within the leadership and to weaken organizational coordination and institutions designed to create, maintain, and strengthen secondary cohesion. I have further argued that the positive effect of indiscriminate state violence on insurgent fragmentation should be mitigated in cases where internal insurgent institutions for secondary cohesion are strong, which was theorized to be the case in irregular wars. My results consistently support these claims: Based on a dataset of 114 conflicts, I find that indiscriminate state violence indeed substantially increases the probability of insurgent fragmentation, and that this effect is much weaker in irregular than non-irregular conflicts.

In chapter 7 I will argue that indiscriminate state violence is likely to prevent the conclusive settlement of armed conflicts and to complicate their ultimate termination, and that insurgent fragmentation is one of the key mechanisms through which this occurs. Importantly, my theory is consistent with qualitative research that has shown that organizational splits do not necessarily weaken the overall efficiency of armed organizations (Kenny, 2010, 553), and that organizational splits should therefore not be mistaken as a robust indicator of insurgent demise. And yet, organizational splintering is very likely to complicate negotiation processes between governments and insurgent groups, and therefore to hinder, rather than facilitate, conflict termination – especially termination through negotiated settlements (e.g., Cunningham, 2006; Walter, 2009).[66] Furthermore, insofar as 'original' insurgent organizations and splinters typically compete for the same constituency, intergroup competition may contribute to the escalation of conflicts. Indeed, stepping up the fight against the government can become one of the means insurgents resort to in an attempt to trump their rivals in the quest for popular support (e.g., Wucherpfennig, 2011). Insurgent fragmentation is also likely to aggravate processes of local polarization and militarization, both of which are potential sources of long-term political instability, as will be argued in chapter 7.

My results resonate with theoretical and empirical contributions that have stressed the relevance of armed groups' institutions for insurgent cohesion (Staniland, 2010), while

[66] To be sure, more research is needed on the relationship between insurgent fragmentation and conflict termination. On opposing findings see for instance Cunningham (2006) and Findley and Rudloff (2012).

at the same time contributing to a better understanding of the determinants of institutional strength. Future research should aim to uncover further sources of institutional continuity and change, both across and within insurgent organizations. This is especially relevant since recent research has demonstrated the relevance of armed groups' institutions and secondary cohesion in explaining violence against civilians in armed conflicts (Wood, 2009; Hoover Green, 2011; Wood, 2012).

While the presented results are striking, there are limitations of the data that underlie the empirical analysis. First of all, the dataset only captures a relatively short time period (1989-2003), and it will be subject to further research to assess the robustness of the results based on a larger sample of conflicts. This is particularly relevant as this study is restricted to relatively short conflicts and the period after the Cold War. As Kalyvas and Balcells (2010) show, the end of the Cold War had a profound impact on the dynamics of intra-state armed conflicts, and it is therefore not necessarily straightforward to seamlessly 'extrapolate' conclusions based on post-Cold War data to previous periods (or vice versa).

Second, the coding of splinters in this analysis was deliberately rather conservative compared to other studies (such as Findley and Rudloff, 2012), as only major splinters were coded, i.e., splinters that turned out to be significantly involved in organized armed violence themselves. It would be interesting to see if the results hold for other forms of organizational fragmentation, in particular fragmentation due to splinter groups that do not emerge as primary actors in organized violence.

Third, while I carefully controlled for the most important confounders through entropy balancing and covariate adjustment, a more effective disentanglement of cause and effect would require the disaggregation of the data to capture the exact timing of state violence on the one hand and insurgent fragmentation on the other. In the current analysis it is not possible to rule out endogenous tendencies, such as the influence of disintegrative dynamics among insurgent groups on the propensity of governments to resort to one-sided violence. Ideally, one could also rely on a measure of state violence

that includes more information on context, intensity, and the exact type of targeting.[67] Causal inference, although a major challenge in most macrocomparative observational studies, is particularly challenging when the data are not disaggregated on the time dimension, and future efforts should therefore concentrate on acquiring data that include more detailed information on the timing of insurgent splits. Strong internal validity and a high credibility when it comes to the identification of causal effects are among the key strengths of studies that use subnational data and that rely on natural experiments in particular. These specific advantages of microlevel approaches are exploited in the next chapter, which focuses on a distinct set of mechanisms through which state violence influences subsequent conflict processes.

In summary, in this chapter I have theorized and explored a consequence of wartime state violence that has previously been largely overlooked – its effect on the vulnerability of insurgent organizations to internal splintering. Theoretically focusing on the individual, group, and organizational level, I have argued that indiscriminate state violence is likely to increase the supply of fresh recruits and to strengthen bonds between immediate group members, while at the same time undermining secondary cohesion, thereby rendering insurgent organizations prone to splintering. Consistent with my theoretical argument, the results suggest that indiscriminate state violence significantly and substantially increases the risk of insurgent fragmentation, and that this effect is mitigated in irregular wars, where institutional resilience is stronger. While the empirical findings are novel and consequential, the chapter theoretically not only contributes to the literature on the effects of state violence, but also to the emerging research field on armed groups' institutions, as well as the burgeoning but still very heterogeneous literature on insurgent cohesion and fragmentation.

[67] The importance of timing is suggested by Jordan (2009), who studies the effect of leadership decapitation on the viability of terrorist organizations. Jordan finds that as organizations grows older and larger, they are more likely to withstand state attacks against their leadership.

# Supplementary Material:

# Insurgent Fragmentation

Table 5.14: State Violence and Ins. Fragmentation (incl. Irregular War and Duration)

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| Gov. Violence (0/1) | 2.794+ | 2.785+ | 2.080** | 1.933** | 3.200* | 3.081* |
| | (1.463) | (1.463) | (0.769) | (0.717) | (1.539) | (1.518) |
| Irregular | | | 1.974* | 1.875* | 0.281 | 0.261 |
| | | | (0.798) | (0.793) | (1.135) | (1.130) |
| Rebel Support | | | -1.405+ | -1.313+ | -0.632 | -0.539 |
| | | | (0.724) | (0.676) | (1.246) | (1.228) |
| Duration (Years) | | | 0.302* | 0.275* | 0.154 | 0.135 |
| | | | (0.138) | (0.128) | (0.232) | (0.228) |
| Prior Ins. Violence | | | -2.024* | -1.830+ | -1.705+ | -1.567 |
| | | | (0.999) | (0.976) | (1.036) | (1.016) |
| Excl. Ethn. Recr. | | | 0.988 | 0.983 | 1.171 | 1.136 |
| | | | (0.705) | (0.670) | (1.256) | (1.251) |
| Previously Active | | | 1.626+ | 1.552+ | 0.427 | 0.563 |
| | | | (0.962) | (0.928) | (1.481) | (1.467) |
| Rel. Fighting Capacity | | | 1.301 | 1.201 | 0.786 | 0.674 |
| | | | (0.803) | (0.790) | (1.167) | (1.154) |
| Ins. Central Control | | | -1.021 | -0.922 | -1.557 | -1.397 |
| | | | (1.227) | (1.201) | (1.717) | (1.703) |
| Ins. Terr. Control | | | 0.116 | 0.113 | -0.288 | -0.217 |
| | | | (0.749) | (0.699) | (1.118) | (1.108) |
| Constant | -4.314** | | -4.138*** | | -3.730 | |
| | (1.403) | | (1.030) | | (2.595) | |
| Cut 1 | | 4.310** | | 4.073*** | | 3.828 |
| | | (1.403) | | (0.988) | | (2.621) |
| Cut 2 | | 6.278*** | | 6.358*** | | 5.958* |
| | | (1.640) | | (1.241) | | (2.771) |
| Log-Likelihood | -21.094 | -24.469 | -32.181 | -38.453 | -17.752 | -21.478 |
| $\chi^2$ | 7.260557 | 7.205235 | 25.68124 | 29.5865 | 13.9457 | 13.18681 |
| Weights | Yes | Yes | No | No | Yes | Yes |
| N | 114 | 114 | 114 | 114 | 114 | 114 |

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001; (robust) standard errors in parentheses.
Models I, III, V: binary logit; models II, IV, VI: ordinal logit.
Weights based on entropy balancing.

Table 5.15: State Violence and Insurgent Fragmentation (incl. Irregular War)

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| Gov. Violence (0/1) | 2.360+ | 2.349+ | 1.917* | 1.804* | 2.734* | 2.624* |
| | (1.211) | (1.211) | (0.848) | (0.775) | (1.321) | (1.297) |
| Irregular | | | 1.893* | 1.822* | 0.369 | 0.358 |
| | | | (0.833) | (0.824) | (1.041) | (1.035) |
| Prior Ins. Violence | | | -1.952+ | -1.808+ | -1.664+ | -1.562 |
| | | | (1.065) | (1.032) | (0.977) | (0.964) |
| Rebel Support | | | -0.916 | -0.882 | -0.267 | -0.234 |
| | | | (0.697) | (0.676) | (1.063) | (1.043) |
| Excl. Ethn. Recr. | | | 0.965 | 0.958 | 1.215 | 1.174 |
| | | | (0.694) | (0.667) | (1.239) | (1.231) |
| Previously Active | | | 1.390 | 1.325 | 0.514 | 0.640 |
| | | | (0.943) | (0.921) | (1.376) | (1.362) |
| Rel. Fighting Capacity | | | 1.037 | 0.944 | 0.654 | 0.558 |
| | | | (0.777) | (0.756) | (1.109) | (1.093) |
| Ins. Central Control | | | -0.621 | -0.541 | -1.015 | -0.922 |
| | | | (1.134) | (1.103) | (1.521) | (1.509) |
| Ins. Terr. Control | | | 0.343 | 0.342 | -0.263 | -0.186 |
| | | | (0.779) | (0.745) | (1.096) | (1.088) |
| Constant | -3.880*** | | -3.484*** | | -3.483 | |
| | (1.137) | | (0.814) | | (2.177) | |
| Cut 1 | | 3.875*** | | 3.484*** | | 3.547 |
| | | (1.137) | | (0.798) | | (2.200) |
| Cut 2 | | 5.821*** | | 5.708*** | | 5.629* |
| | | (1.405) | | (0.975) | | (2.365) |
| Log-Likelihood | -22.214 | -25.748 | -33.971 | -40.023 | -18.874 | -22.711 |
| $\chi^2$ | 6.238193 | 6.177388 | 17.4122 | 20.99332 | 12.91926 | 12.2528 |
| Weights | Yes | Yes | No | No | Yes | Yes |
| N | 114 | 114 | 114 | 114 | 114 | 114 |

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001; (robust) standard errors in parentheses.
Models I, III, V: binary logit; models II, IV, VI: ordinal logit.
Weights based on entropy balancing.

Table 5.16: State Violence and Insurgent Fragmentation (Interaction Irreg. Balanced)

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| State Violence | 2.232 | 2.237 | 3.716** | 3.545** | 5.037 | 4.957 |
| | (9.701) | (9.701) | (1.267) | (1.211) | (10.276) | (10.264) |
| State Violence x Irregular | -2.054 | -2.121 | -3.591* | -3.524* | -3.548 | -3.607 |
| | (10.157) | (10.160) | (1.612) | (1.526) | (10.644) | (10.630) |
| Irregular | 3.745 | 3.799 | 3.844** | 3.723** | 3.597 | 3.640 |
| | (9.949) | (9.952) | (1.253) | (1.212) | (10.202) | (10.192) |
| Rebel Support | | | -1.116 | -1.024 | 2.396 | 2.261 |
| | | | (0.804) | (0.768) | (2.585) | (2.531) |
| Prior Ins. Violence | | | -1.675+ | -1.510+ | -2.128 | -2.067 |
| | | | (0.892) | (0.890) | (3.027) | (2.992) |
| Excl. Ethnic Recr. | | | 1.043 | 1.052 | 1.471 | 1.437 |
| | | | (0.698) | (0.670) | (3.411) | (3.374) |
| Previously Active | | | 1.106 | 1.007 | -2.799 | -2.748 |
| | | | (1.057) | (1.022) | (4.714) | (4.725) |
| Rel. Fighting Capacity | | | 1.279 | 1.116 | 0.342 | 0.361 |
| | | | (0.803) | (0.777) | (3.415) | (3.359) |
| Ins. Central Control | | | -1.400 | -1.260 | -0.983 | -1.050 |
| | | | (1.315) | (1.288) | (3.187) | (3.149) |
| Ins. Terr. Control | | | 0.396 | 0.365 | -3.716 | -3.592 |
| | | | (0.864) | (0.811) | (4.082) | (4.010) |
| Constant | -5.628 | | -4.123*** | | -6.989 | |
| | (9.514) | | (1.050) | | (11.002) | |
| Cut 1 | | 5.628 | | 4.126*** | | 6.826 |
| | | (9.514) | | (1.054) | | (10.885) |
| Cut 2 | | 8.892 | | 6.444*** | | 10.736 |
| | | (9.977) | | (1.133) | | (11.445) |
| Log-Likelihood | -7.327 | -7.774 | -30.999 | -37.067 | -4.513 | -5.041 |
| $\chi^2$ | 1.513758 | 1.500601 | 21.60334 | 25.5765 | 7.141868 | 6.964782 |
| Weights | Yes | Yes | No | No | Yes | Yes |
| N | 114 | 114 | 114 | 114 | 114 | 114 |

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001; (robust) standard errors in parentheses.
Models I, III, V: binary logit; models II, IV, VI: ordinal logit.
Weights based on entropy balancing.

Table 5.17: State Violence and Insurgent Fragmentation (Interaction Conv. CW)

| | I | II | III | IV | V | VI | VII | VIII |
|---|---|---|---|---|---|---|---|---|
| State Violence | 1.699* | 1.552* | 1.817* | 1.622* | 2.001* | 1.695+ | 1.596 | 1.315 |
| | (0.831) | (0.784) | (0.795) | (0.746) | (1.016) | (0.911) | (1.141) | (0.999) |
| State Violence x Conventional | 0.088 | 0.239 | -0.065 | 0.148 | 0.202 | 0.457 | 1.120 | 1.244 |
| | (1.531) | (1.509) | (1.699) | (1.640) | (1.620) | (1.555) | (1.722) | (1.609) |
| Conventional | -0.562 | -0.554 | -0.534 | -0.518 | -1.333 | -1.278 | -2.056 | -1.932 |
| | (1.063) | (1.047) | (1.092) | (1.066) | (1.263) | (1.225) | (1.393) | (1.326) |
| Rebel Support | -0.592 | -0.581 | -1.094 | -1.052 | -1.399+ | -1.295+ | -1.399 | -1.263 |
| | (0.684) | (0.652) | (0.784) | (0.725) | (0.819) | (0.715) | (0.928) | (0.793) |
| Prior Ins. Violence | -1.679+ | -1.529+ | -1.903* | -1.685+ | -2.102* | -1.779+ | -2.098+ | -1.786+ |
| | (0.868) | (0.850) | (0.950) | (0.924) | (1.037) | (0.950) | (1.078) | (0.965) |
| Excl. Ethnic Rec. | 1.075 | 1.049 | 1.072 | 1.038 | 0.708 | 0.701 | 0.549 | 0.565 |
| | (0.762) | (0.735) | (0.833) | (0.790) | (0.791) | (0.748) | (0.807) | (0.765) |
| Previously Active | 0.927 | 0.957 | 1.132 | 1.138 | 1.900 | 1.793 | 1.950 | 1.773 |
| | (0.894) | (0.941) | (0.913) | (0.938) | (1.222) | (1.219) | (1.355) | (1.290) |
| Re. Fighting Capacity | 0.181 | 0.121 | 0.288 | 0.228 | 0.399 | 0.275 | 0.713 | 0.549 |
| | (0.639) | (0.624) | (0.688) | (0.662) | (0.700) | (0.658) | (0.796) | (0.745) |
| Ins. Central Control | -0.059 | -0.002 | -0.410 | -0.309 | -0.977 | -0.792 | -1.075 | -0.888 |
| | (1.151) | (1.134) | (1.266) | (1.265) | (1.491) | (1.504) | (1.439) | (1.416) |
| Ins. Terr. Control | 0.282 | 0.287 | 0.141 | 0.124 | 0.164 | 0.181 | 0.364 | 0.353 |
| | (0.643) | (0.628) | (0.586) | (0.561) | (0.853) | (0.796) | (0.970) | (0.888) |
| Time since Onset (Years) | | | 0.288* | 0.267* | 0.198 | 0.171 | | |
| | | | (0.137) | (0.128) | (0.158) | (0.145) | | |
| Constant | -2.799** | | -3.235** | | -1.515 | | -0.447 | |
| | (0.918) | | (1.104) | | (1.634) | | (1.411) | |
| Cut 1 | | 2.822** | | 3.238** | | 1.589 | | 0.630 |
| | | (0.942) | | (1.149) | | (1.666) | | (1.448) |
| Cut 2 | | 4.994*** | | 5.471*** | | 3.956* | | 3.014* |
| | | (1.049) | | (1.274) | | (1.706) | | (1.387) |
| Log-Likelihood | -37.067 | -42.993 | -35.194 | -41.314 | -28.854 | -35.141 | -28.205 | -34.482 |
| $\chi^2$ | 14.54095 | 16.11369 | 21.25481 | 22.95905 | 20.46945 | 24.29868 | 14.6711 | 21.3019 |
| Weights | No | No | No | No | No | No | No | No |
| N | 114 | 114 | 114 | 114 | 75 | 75 | 70 | 70 |

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001; robust standard errors in parentheses.
Models I, III, V, VII: binary logit; models II, IV, VI, VIII: ordinal logit.

Table 5.18: State Violence and Insurgent Fragmentation (Interaction SNC)

| | I | II | III | IV | V | VI | VII | VIII |
|---|---|---|---|---|---|---|---|---|
| State Violence | 1.071 | 0.865 | 1.148 | 0.935 | 1.182 | 0.978 | 1.116 | 0.916 |
| | (0.767) | (0.735) | (0.736) | (0.724) | (0.950) | (0.943) | (0.938) | (0.912) |
| State Violence x SNC | 17.548*** | 15.388*** | 17.739*** | 17.054*** | 16.455*** | 16.940*** | 17.228*** | 16.396*** |
| | (1.353) | (1.184) | (1.622) | (1.351) | (1.542) | (1.377) | (1.401) | (1.271) |
| SNC | -13.823*** | -12.599*** | -14.400*** | -14.631*** | -13.403*** | -14.753*** | -14.186*** | -14.183*** |
| | (1.048) | (1.009) | (1.259) | (1.178) | (1.167) | (1.126) | (1.051) | (1.029) |
| Rebel Support | -0.366 | -0.342 | -0.863 | -0.805 | -1.007 | -0.906 | -0.774 | -0.686 |
| | (0.702) | (0.646) | (0.755) | (0.698) | (0.840) | (0.732) | (0.799) | (0.690) |
| Prior Ins. Violence | -1.790* | -1.317 | -1.948+ | -1.454 | -2.182* | -1.633+ | -2.179* | -1.671+ |
| | (0.885) | (0.844) | (0.995) | (0.969) | (1.078) | (0.953) | (1.039) | (0.921) |
| Excl. Ethnic Rec. | 1.355 | 1.147 | 1.362 | 1.173 | 1.017 | 0.858 | 0.843 | 0.703 |
| | (0.859) | (0.712) | (0.890) | (0.754) | (0.901) | (0.777) | (0.926) | (0.795) |
| Previously Active | 1.003 | 0.977 | 1.086 | 1.054 | 1.626 | 1.538 | 1.679 | 1.567 |
| | (0.878) | (0.910) | (0.896) | (0.910) | (1.202) | (1.195) | (1.197) | (1.184) |
| Rel. Fighting Capacity | -0.468 | -0.508 | -0.357 | -0.373 | -0.486 | -0.524 | -0.399 | -0.456 |
| | (0.749) | (0.723) | (0.777) | (0.751) | (0.801) | (0.783) | (0.796) | (0.764) |
| Ins. Central Control | -0.046 | 0.106 | -0.295 | -0.132 | -0.403 | -0.182 | -0.194 | -0.004 |
| | (1.150) | (1.116) | (1.153) | (1.143) | (1.286) | (1.292) | (1.225) | (1.200) |
| Ins. Terr. Control | 0.176 | 0.205 | -0.013 | -0.006 | -0.188 | -0.142 | -0.126 | -0.067 |
| | (0.758) | (0.725) | (0.700) | (0.668) | (0.790) | (0.777) | (0.845) | (0.826) |
| Time since Onset (Years) | | | 0.241 | 0.225+ | 0.157 | 0.145 | | |
| | | | (0.149) | (0.133) | (0.165) | (0.144) | | |
| Constant | -2.924** | | -3.236** | | -1.968 | | -1.547 | |
| | (0.976) | | (1.089) | | (1.309) | | (1.099) | |
| Cut 2 | | 2.900** | | 3.205** | | 2.051 | | 1.642 |
| | | (0.962) | | (1.090) | | (1.331) | | (1.138) |
| Cut 2 | | 5.294*** | | 5.624*** | | 4.554** | | 4.143*** |
| | | (1.127) | | (1.266) | | (1.451) | | (1.230) |
| Log-Likelihood | -33.479 | -40.226 | -32.330 | -39.144 | -27.289 | -33.998 | -27.136 | -33.820 |
| $\chi^2$ | 348.4898 | 358.3648 | 251.5891 | 334.8684 | 245.1218 | 349.6281 | 331.6024 | 394.0394 |
| Weights | No | No | No | No | No | No | No | No |
| N | 114 | 114 | 114 | 114 | 75 | 75 | 70 | 70 |

+ p<0.1 * p<0.05 ** p<0.01 *** p<0.001; robust standard errors in parentheses.
Models I, III, V, VII: binary logit; models II, IV, VI, VIII: ordinal logit.

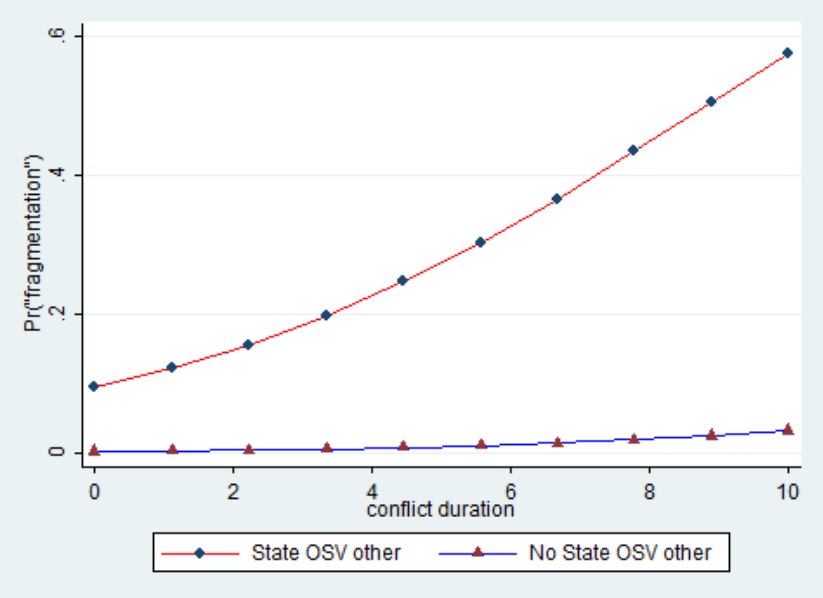


Figure 5.4: Insurgent Fragmentation in Non-Irregular Wars II

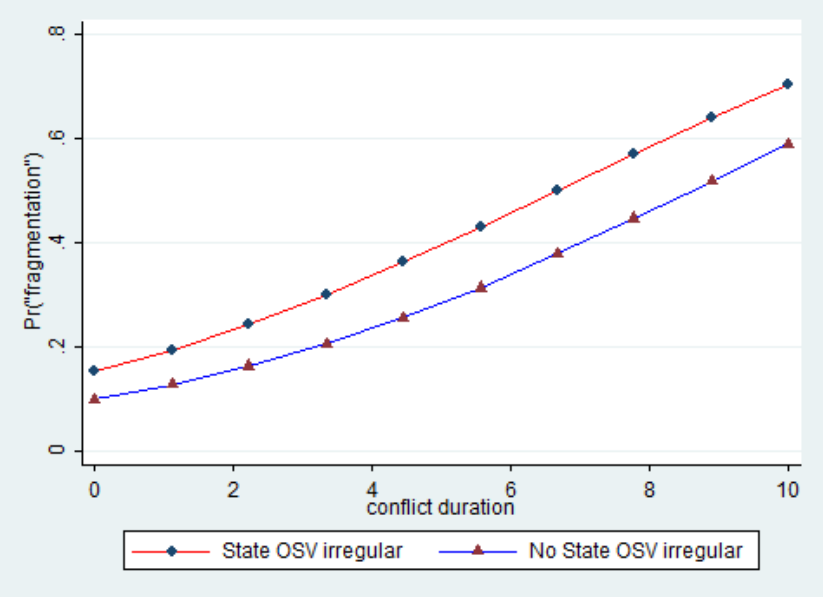


Figure 5.5: Insurgent Fragmentation in Irregular Wars II

# Part III

# State Violence and Civilian Communities

# Chapter 6

# State Violence and Counterinsurgent Collective Action

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## 6.1 Introduction

Research on civil wars typically features two types of armed actors – rebel groups and the state. However, many armed conflicts are shaped by the emergence and activities of armed actors that fall into neither of these categories – actors that are not part of the official state forces, but are organized in armed resistance against insurgent groups. Examples of such actors, which are commonly referred to as 'militias,' 'paramilitaries,' or 'civil defense forces,' are the *Autodefensas Unidas* in Colombia (Gutiérrez Sanín, 2008), the *Tamaboro* and *Kamajor* militias in Sierra Leone (Forney, 2012), the *Patrullas de Autodefensa Civil* in Guatemala (Bateson, 2011), or the *Naparama* militias in Mozambique (Jentzsch, 2012).

Counterrevolutionary mobilization often has profound consequences on subsequent dynamics of political violence (e.g., Degregori et al., 1996; Carey and Mitchell, 2011), yet despite the recent surge of studies on wartime violence and mobilization, still little is known about the determinants of counterinsurgent collective action. This research gap is especially striking when it comes to the effect of state violence in particular:

On the one hand, there is convincing evidence that campaigns of indiscriminate state violence tend to swell the rebels' ranks with new followers (e.g., Goodwin, 2001; Nillesen and Verwimp, 2009) and help to expand their territorial control (Kocher, Pepinsky and Kalyvas, 2011). On the other hand, it is also well documented that whole communities have publicly defected to the state, despite state forces having been responsible for horrendous violence against them (e.g., Stoll, 1993). *What effect does state violence have on counterinsurgent collective action in civil wars?*

This chapter[1] investigates how state violence influences the mobilization of ordinary citizens into civil defense forces at the community level. I argue that one common and particular type of indiscriminate state violence, marked by direct and collective targeting, is likely to promote counterinsurgent mobilization when insurgents fail to maintain high levels of internal or territorial control. Theoretically focusing on community-based forms of mobilization, I emphasize several interrelated mechanisms that link state violence to counterinsurgent collective action, in particular the signaling of a community's non-allegiance to the insurgents and the militarization of local governance. My argument is supported in the empirical analysis, which focuses on counterinsurgent mobilization during the Peruvian civil war.

Specifically, I study variation in state violence and counterinsurgent mobilization in the Peruvian armed conflict during the 1980s. Using geo-referenced data and two distinct identification strategies, I investigate how exposure to state violence affected the subsequent mobilization of ordinary citizens into civil defense forces at the community level. First, I combine propensity score matching with difference-in-differences estimation to account for observed and time-invariant unobserved heterogeneity between targeted and untargeted villages. Second, I rely on a spatial regression discontinuity approach

[1]Earlier versions of this chapter were presented at Yale's Program on Order, Conflict and Violence speaker series in April 2011, at the Conference on Paramilitaries, Militias, and Civil Defense Forces at Yale University in October 2012, and the annual meeting of the Midwest Political Science Association in Chicago in April 2013. I thank the participants of these events for helpful comments, in particular Corinna Jentzsch, Stathis Kalyvas, Luke Keele, Matt Kocher, Eduardo Moncada, Abbey Steele, Elisabeth Wood, and Gina Bateson. I also thank John Griffin, Jeffrey Checkel, Ronald Schmidt, Sebastian Schutte, and Marco Steenbergen for valuable feedback. I am further indebted to David Sulmont for his distinguished supervision at PUCP, to Onur Bakiner for helping me to establishing valuable contacts in Peru, to Ponciano del Pino and Juan-Carlos Guerrero for answering my questions, as well as Paolo André Rivas Legua and Gabriel Salazar Borja for their research assistance in Lima.

that exploits the fact that state repression was largely confined – *de iure* and *de facto* – to specific districts and provinces. The results consistently suggest a positive effect of state repression on counterinsurgent collective action in Peruvian villages and towns.

Having discussed the previous literature on counterinsurgent collective action in chapter 2, I proceed here by introducing a theory of state violence and counterrebellious mobilization in irregular war, conceptually disaggregating a phenomenon which remains poorly understood. After presenting the theoretical argument, I outline the empirical context of this study, followed by the identification strategies and the data that underlie the empirical analysis. I then present the results and conclude by discussing the implications of my findings.

## 6.2 A Theory of State Violence and Counterinsurgent Collective Action

> "[A] theory of revolution, or an analysis of a specific revolution, which provides no understanding of the presence of counter-revolutionary forces in the midst of a society in revolt must leave us unsatisfied. If a theory purports to tell us when and why a society is ready for rebellion, it also ought to tell us which sectors of the society will resist the rebellion, and why" (Tilly, 1963, 30)

*Counterinsurgent collective action* in this study is defined as the establishment, active participation in, or support of groups and organizations that are not part of the official security forces of the state, but whose purpose lies at least partially in the armed resistance against and/or protection from insurgent groups. This definition includes both 'grassroots' self-defense movements as well as government-controlled paramilitary groups. It excludes militias operating outside the context of a civil war or armed allies of insurgent organizations.[2]

[2]The terms counterinsurgent groups, civil-defense groups, paramilitary groups, counterinsurgent organizations, and counterinsurgent militias are henceforth used interchangeably. The definition used here differs from, for instance, Carey and Mitchell (2012, 5) in that it does not require counterinsurgent groups to be 'pro-government'. In general, local militias can either serve as local auxiliaries for insurgents or state forces, although state forces are more commonly observed to employ local militias (e.g., Kalyvas, 1999; Kalyvas, 2006). Both pro- and counterinsurgent militias may emerge independently of

### 6.2.1 Two Types of Counterinsurgent Mobilization

I distinguish between two types of counterinsurgent mobilization. The first type follows a top-down logic. Here, counterinsurgent groups are initiated or managed by state forces who organize groups of residents into militia units.[3] The second form of mobilization follows a bottom-up logic. It refers to processes through which organizations are created or sustained independently from the state and through the initiative of local residents themselves.

Although these types of mobilization are mutually exclusive for a given community at one given point in time, they do not foreclose each other. For instance, a certain type of initial counterinsurgent mobilization does not necessarily correspond to the degree of autonomy subsequently enjoyed by counterinsurgent organizations. While 'grassroots organizations' may later be absorbed or controlled by state forces, organizations that are initially created by state agents may later be able to exert considerable degrees of autonomy, including the election of their own leaders (e.g., Del Pino, 1993; Guerrero Bravo, 2004). However, at a given point in time, one type of mobilization typically prevails in a given community. Below I will differentiate between factors that drive the two distinct forms of counterinsurgent mobilization and discuss the ways in which violence exercised by insurgent and state forces shape these processes.

The incentives for governments to create and sustain militias outside the formal state apparatus are numerous, particularly in the context of internal armed conflicts. While the use of paramilitary forces is not restricted to civil war settings, during times of internal conflict local militias promise several strategic advantages: Counterinsurgent militias can strengthen the formal security apparatus, deter potential recruits from joining rebel groups, and mitigate the loss of regular forces, hence reducing the associated political

insurgents or state agents (e.g., Starn, 1995; Degregori, 1998; Fumerton, 2002), sometimes being coopted at later stages (e.g., Ahram, 2011; Hazen, 2010). For an overview of different types of counterinsurgent militas see Jentzsch (2011), for an overview of pro-government armed groups in particular, see Hazen (2010). Note also that I use the terms 'group' and 'organization' largely interchangeably in this chapter, as my primary focus lies on rural civilian communities, where counterinsurgent organizations are typically sufficiently small to fall under the rubric of 'groups'.

[3]That these two types of origins follow distinct logics is reflected by the existing literature, which has approached the first type of mobilization as a collective action problem (Arjona, 2009*b*), while the latter has sometimes been explained in a principal-agent framework (Carey, Mitchell and Lowe, 2009).

costs (Carey and Mitchell, 2011, 12f.). Moreover, militias usually operate locally and thus allow state agents to reduce the costs of obtaining high-quality information about rebel supporters and local terrain (Kalyvas, 1999, 165f.; Kalyvas, 2006, 107ff.; see also Lyall (2010*a*) and Hazen, 2010). Because the state's hierarchy provides an efficient solution to the collective action problem (Lichbach, 1995, 258f.), I expect the capacity for top-down mobilization to be largely determined by the state's capability to provide selective benefits and to employ coercion in activating and expanding its networks (Gates, 2002; Gates and Nordås, 2010; Humphreys and Weinstein, 2008; Lichbach, 1995).[4] In short, and despite the fact that counterinsurgent groups are often associated with state weakness in the sense of a loss of a state's monopoly of violence, top-down mobilization should be positively associated with local state strength (cf. Carey and Mitchell, 2011).[5]

The bottom-up type of counterinsurgent mobilization follows a different logic. Rather than being motivated by the defense of the state, as sometimes portrayed in the literature, I expect counterinsurgent groups to emerge as a form of militarized local governance[6] if security and governance are provided by neither the state nor insurgent groups and cannot be secured through alternative strategies. Under conditions of armed conflict, I assume the incentives for armed self-defense to be strong enough for local residents if there is no institution that guarantees order and security, and if alternative forms of protection are foreclosed. In rural areas, for instance, the option of migration is typically less available to economically marginalized civilians that are heavily dependent on agricultural forms of production, and which also tend to be less embedded into geograph-

[4] A large strain of literature builds on Olson (1971) in emphasizing the role of selective incentives, i.e., benefits exclusively available to those participating in armed groups (e.g., Lichbach, 1995; Popkin, 1979; Tullock, 1971). This strain of theories is often contrasted with theories that highlight grievances as motives for rebellion (e.g., Cederman, Gleditsch and Weidmann, 2011; Gurr, 1970; Muller and Seligson, 1987), suggesting the propensity of individuals to join insurgent groups to be a function of perceived injustices, typically operationalized in terms of economic deprivation or political exclusion. But of course, selective benefits may be non-material (Lichbach, 1995). Accounts that depart from standard rational choice approaches integrate other- and process-regarding preferences (Wood, 2003*a*) and non-pecuniary rewards based on shared identity or ideology (Gates, 2002; Gates and Nordås, 2010) into models of participation. See also chapter 3.

[5] On diverging claims about paramilitary groups and state weakness and state strength respectively, see Arjona and Kalyvas (2009) and Carey and Mitchell (2011).

[6] By 'militarized local governance', I refer to local forms of governance that are shaped by the power of armed actors (Wood, 2008, 550).

ically dispersed networks.[7] Likewise, the option of joining highly mobile guerrilla units is typically not only restricted to the young and healthy, but also conditional upon the recruitment and screening strategies of rebel groups (Kalyvas and Kocher, 2007). For those civilians left behind in contested areas, qualitative evidence consistently points to three principal functions of community-based counterinsurgent groups (e.g., Fumerton, 2001; García-Godos, 2006): resistance against rebel incursions,[8] protection from state suspicion, and community governance.[9] Exposure to indiscriminate state violence will increase the demand for all of these functions, as I will argue below (section 6.2.2).

Any yet, incentives alone are insufficient to account for counterinsurgent collective action. In principle, the initiators of bottom-up resistance are faced with the same challenges as the leaders of nascent insurgent groups, including the recruitment of strongly committed recruits, the maintenance of internal control, the governance of relationships with the local populace, and the strategic use of violence (Weinstein, 2007). In contrast to rebel groups, however, counterinsurgent organizations typically emerge highly localized; mobilization occurs community-centered and internal group structures are embedded into existing social networks and institutions (Forney, 2012). Information is much more symmetric, facilitating the screening and monitoring of members, especially in communities characterized by high levels of social cohesion.[10] High levels of social cohesion also facilitate collective action through shared norms and preferences, such as preferences for or against certain modes of governance, including insurgent rule (e.g., Arjona, 2009*b*; La Serna, 2012). Indeed, several scholars have emphasized the relevance of community-level factors such as the density of overlapping social ties and the strength of pre-existing local institutions in promoting pro- and counterinsurgent collective action trough mechanisms such as the facilitation of mutual monitoring and social sanction-

[7]See for instance Mason (2004, 156), Kalyvas (2006, 236f.,fn.34) and Kalyvas and Kocher (2007, 211,fn.86), on Peru see Degregori (1998, 151) and Del Pino (1996, 164).

[8]This includes resistance against insurgent rule judged illegitimate (Degregori, 1998; Arjona, 2009*a*; La Serna, 2012).

[9]García-Godos (2006, 125f., 128, 151, 273) for instance argues for the case of the Peruvian district of Tambo that the peasant *rondas'* functions were as much geared towards the provision of structures for community governance as the protection from state repression and rebel incursions.

[10]On the facilitation of collective action through village-based institutions, see for instance Mason (2004, 104ff.) and Taylor (1988); on the relevance of information provided by local networks to militia leaders to overcome selection problems in recruitment, see Forney (2012).

ing, established structures for cooperation, and shared preferences for governance (e.g., Taylor, 1988; Gould, 1995; Petersen, 2001; Arjona, 2009*b*; La Serna, 2012).[11]

In sum then, even though one form of mobilization does not foreclose the other,[12] it is important to distinguish between the two on theoretical grounds, as summarized in table 6.1.

Table 6.1: Two Types of Counterinsurgent Mobilization

| | **Type of Mobilization** | |
|---|---|---|
| | Top-down: | Bottom-up: |
| | State forces organize local residents into militia units. | Independent mobilization based on initiative of local residents. |
| **Incentives** | Local information<br>Cost reduction | Security<br>Governance |
| **Capacities** | State capacity<br>(network penetration, selective benefits, coercion) | Community-level cohesion<br>(density of social ties, shared preferences, institutions) |

Apart from initial levels of social cohesion, the strength of internal insurgent control and the local balance of power should help to further explain variation in counterinsurgent collective action.

First, the degree of insurgent internal control[13] is expected to influence both types of counterinsurgent mobilization through several mechanisms. A higher degree of internal control implies a lower rate of deserters and defectors, the former often constituting valuable recruits for counterinsurgent organizations (Gutiérrez Sanín, 2008; Kalyvas, 1999; Staniland, 2012). Furthermore, high levels of internal control imply that principal-agent problems are mitigated with respect to defections by subfactions, splinter groups, or individuals, thereby reducing the likelihood of opportunistic behavior towards civilians

[11] On the role of community-level factors such as local institutions in explaining variations in counterinsurgent mobilization in Peru, see for instance Benavides (1992), Coronel and Loayza (1992), Coronel (1996), La Serna (2012) and Del Pino (1996), on the transformative effect of violence on community structures, see for instance Fumerton (2001) and Weidmann and Zürcher (2013).

[12] One way through which the two types of mobilization can occur sequentially is through cycles of punishment and self-defense. Armed peasant patrols are a very public disclosure of defection from insurgents and thus typically attracts ferocious retaliation from the latter (e.g., Kalyvas, 1999), thereby rendering repeated side-switching highly unlikely and giving rise to path dependent processes. In other words, counterinsurgent mobilization may be the result of prior mobilization, whether this occurred voluntarily or not.

[13] By internal insurgent control, I refer to the extent to which the leadership exercises control over the organization (Cunningham, Gleditsch and Salehyan, 2009*a*).

(Weinstein, 2007; Wood, 2009), which tends to motivate civilian resistance. Finally, strong internal insurgent control should make the concentrated repression of counter-insurgent collective action more effective.[14]

Second, the local balance of power is expected to influence the dynamics of pro- and counterinsurgent recruitment and defection (e.g., Gates, 2002; Lichbach, 1995; Lyall, 2009; Wood, 2003) through the perceived probabilities of victory and defeat. Signs that an armed party is weak are expected to lower its ability to secure both active and passive support, for example by signaling that a given organization will not be able to meet the expectations and commitments expanded during the war (Tilly, 2005, 20f.), and by signaling its inability to protect its constituents in the future (e.g., Kalyvas and Kocher, 2007; Kalyvas, 2006, 167f.). Furthermore, the provision of protection through 'safe havens' (rather than just warnings) to civilians in the face of indiscriminate state violence requires a minimal amount of territorial control (Goodwin, 2001; Kalyvas, 2006). Lastly, territorial control enjoyed by armed actors – or at least spatial proximity of local communities to armed forces (Gates, 2002; Wood, 2003) – determines the opportunities for mobilization strategies to be realized, and is thus one of the most important determinants of civilian collaboration and defection, including counterinsurgent mobilization (Kalyvas, 2006; Kalyvas, 2008*b*; Kalyvas, 2008*a*; Arjona and Kalyvas, 2009).

### 6.2.2 State Violence and Counterinsurgent Collective Action

Theoretically, several interrelated mechanisms can be identified that link indiscriminate state violence to bottom-up mobilization in irregular war.

One important mechanism is signaling, understood as the process trough which certain features or actions are purposively displayed with the intention to raise the probability of the receiver interpreting them in a given way (Gambetta, 2009, 170).[15] In the

[14] A similar argument is made by Kocher, Pepinsky and Kalyvas (2011, 204) on the conditional effect of indiscriminate violence; they argue that the internal structure of rebel groups might account for differences in the capacity for local collective action against insurgents.

[15] As Gambetta (2009) writes: "Signals are the stuff of *purposive* communication. Signals are observable features of an agent which are intentionally displayed for the purpose of raising the probability the receiver assigns to a certain state of affairs" (Gambetta, 2009, 170).

face of state violence that is based on 'profiling', mobilization against insurgent groups is one of the few strategies available to targeted communities to evade further exposure to state violence by demonstrating their non-allegiance to the insurgents (see also Lyall, 2009, 337 and Kalyvas 2006, 167f.).[16]

Signaling in the form of counterinsurgent mobilization will only be pursued as a strategy of self-protection if state violence is indiscriminate yet neither entirely arbitrary nor exclusively indirect.[17] If state violence is exclusively indirect, as for instance in the case of aerial bombings, civilians will anticipate that behavioral signs may simply not be received;[18] if violence is completely arbitrary, noncombatants will expect that the perpetrator lacks the capability or willingness to discriminate in the first place. However, in most civil wars, state violence is not exclusively indirect, and state agents typically have incentives to discriminate between the 'guilty' and the 'innocent' (Kalyvas, 2006).[19] Counterinsurgent collective action is thus one way civilians may choose to publicly convey their alignment with the stronger side to maximize their security in the wake of severe state repression that dramatically discloses the insurgents' incapacity to protect the very people they aspire to govern and represent.[20]

Another process that is distinct from signaling but occurs in relation to it is the sustained institutionalization of armed self-defense at the community level as a means to provide security and order independently from the state. This process is often linked to the militarization of local governance, that is, "the supplanting of local forms of governance with new forms that reflect the influence of armed actors" (Wood, 2008, 550). While the militarization of local governance occurs during most – if not all – civil wars (Wood, 2008), it is far better researched for contexts in which either insurgents or

[16]On these dynamics in Peru see for instance Weinstein (2007, 248, 250), Coronel and Loayza (1992, 521) and García-Godos (2008, 69; 2006, 273).

[17]On collective targeting see Steele (2009), on the implications of the profiling strategy for the effects of state violence see Kocher, Pepinsky, and Kalyvas (2011, 204), and on the implications of direct versus indirect violence for the interaction between armed actors and civilians see Balcells (2010).

[18]Moreover, in ocntrast to indirect violence, direct violence implies lower levels of insurgent local control, as will be argued below.

[19]On the 'identification problem' and other drivers of indiscriminate state violence even in the presence of strong incentives to discriminate, see Kalyvas (2006).

[20]On the alignment of civilians with the stronger actor see for instance Wood, 2003, 255; Kalyvas 2006, 167f; Kalyvas and Kocher, 2007, 190; on Peru specifically see for instance Fumerton, 2002, 114; Theidon, 2006, 440; Weinstein, 2007, 250.

state forces enjoy full territorial control and are hence the primary agents of institutional change (Arjona, 2009*a*; Mampilly, 2011; Zürrer, 2013). However, if order and security are provided by neither state forces nor insurgent groups, civilians may themselves choose to transform their institutions to respond to the challenges of wartime insecurity. In other words, civilian agency may be a powerful driver of institutional change, including the militarization of local governance.

I argue that under conditions of indiscriminate state violence and insurgents' relative weakness, the militarization of local governance is likely to occur due to the disruption of traditional authority structures and a transformation of local preferences towards the prioritization of security,[21] and that this process tends to be linked to counterinsurgent collective action through the logic of signaling. At the local level, counterinsurgent mobilization can simultaneously and sequentially be related to signaling, self-defense, and governance, such as when village patrols are at at first temporarily implemented to evade state violence, are then institutionalized as a means to fend off retaliatory insurgent attacks that typically follow the public defection implied by signaling,[22] and eventually assume governing functions beyond self-defense to substitute for traditional institutions.[23]

To be sure, counterinsurgent collective action in the wake of indiscriminate state violence is not exclusively linked to the quest for order and security. At the individual level, it may be reinforced by grievances and in-process benefits, similar to the dynamics that have been argued to underlie pro-insurgent wartime mobilization (Wood, 2003*a*; Cederman, Gleditsch and Buhaug, 2012). Indeed, it is often reported that victimized civilians

[21]For descriptions of such processes during wartime more generally, see for instance Fumerton, 2001, and García-Godos, 2006.

[22]Lyall (2009) argues that insurgents will adapt their strategies in response to civilian resistance, including armed counterinsurgent mobilization. It seems more plausible though that insurgents will try to crush armed civilian resistance or move on to other areas, rather than opt for acquiescence, unless they operate locally concentrated and are thus exceedingly dependent on speficic 'pockets' of civilians support; see also Kocher, Pepinsky and Kalyvas (2011, 204).

[23]Note that the militarization of local governance does not have to be related to counterinsurgent mobilization. Similarly, counterinsurgent mobilization does not necessarily lead to the militarization of local governance, as counterinsurgent groups are sometimes successfully subordinated to local authorities (see for instance Fumerton, 2001). My argument implies that the militarization of local governance and counterinsurgent collective action are both more likely to occur and more likely to be linked as a result of state violence.

left behind by mobile guerrilla columns blame the insurgents for the harm inflicted to them by state forces, and that the legitimacy of insurgents as prospective rulers wanes when they are perceived as not capable or not willing to protect the population they aspire to govern and represent (see for instance Lyall, 2009, 337; on Peru specifically see Degregori, 1998, 141; Isbell, 1992, 90; McClintock, 1989, 90; Fumerton, 2001, 482; Weinstein, 2007, 191f.). Anthropological and historical sources also point to the relevance of community-based mobilization for self-defense in the villagers' assertion of their collective identity and the restoration of a sense of agency in the context of chaos and victimization (on Peru see for instance Starn, 1995). Indeed, recent research has shown that victimization can translate into an increased local capacity for collective action, rather than undermining it (e.g., Bellows and Miguel, 2009), an effect that has been traced to the strengthening of pro-social norms in communities (Gilligan, Pasquale and Samii, 2011) and altruistic preferences as well as augmented tendencies for risk-seeking behavior at the individual level (Voors et al., 2012).

I assume the dynamics outlined above to be particularly prevalent if state violence takes the form of direct and collective targeting[24] and occurs in irregular war, where military asymmetry induces distinct dynamics of armed competition, defection, and collaboration. In particular, I expect insurgents to be able to mitigate, if not prevent, counterinsurgent mobilization if they manage to maintain considerable levels of territorial and internal control in spite of state violence. In irregular war, territorial control will most likely be – at least temporarily – weakened in targeted areas as a result of direct state violence, as insurgents will try to avoid direct confrontations with militarily superior state forces.[25] Importantly, none of the mechanisms outlined above is based on the assumption that the autonomous local mobilization of civil-defense forces is based

[24]Under conditions of direct and collective state violence, the signaling strategy will most likely be perceived as a viable strategy of self-protection, and the failure of insurgent groups to protect civilians will have the greatest impact on their legitimacy.

[25]Direct state violence thus implies insurgent territorial control to be weakened locally and at least temporarily, although insurgents may manage to establish or strengthen territorial control elsewhere at the same time. Note that the weakening of insurgent local control does not necessarily occur when state violence is indirect. Kocher, Pepinsky and Kalyvas (2011) find for the case of Vietnam that indirect state violence even *strengthened* insurgent territorial control. On state violence and insurgent control see chapter 5.

on private preferences or loyalties towards the state.[26]

Several implications follow. First, bottom-up mobilization should rarely occur under conditions where one actor enjoys full sovereignty, while top-down mobilization is expected to be positively associated with local state strength. Second, state violence based on direct and collective targeting is likely to promote bottom-up mobilization in irregular wars. Third, the same communities that are at a given point in time most likely to be amenable to bottom-up resistance are the ones that may evade top-down mobilization.[27]

I will restrict the focus of this chapter to the effect of indiscriminate state violence, summarized in H2, while controlling for other theoretically relevant co-determinants of counterinsurgent mobilization through the research design.

**H2** Exposure to indiscriminate state violence increases the probability of counterinsurgent collective action at the community level.

The Peruvian civil war provides an ideal setting to test the implications of my argument for several reasons. First, it classifies as an irregular war and displays wide variation on the dimensions of interest. Second, thanks to the Peruvian Truth and Reconciliation Commission, data on political violence in Peru are of exceptional detail and quality. Third, it also allows for two distinct identification strategies that both facilitate causal inference in observational studies plagued by selection issues, as studies on the effects of political violence typically are. Before turning to the empirical analysis, I will introduce the specific context of this study in the section that follows.

## 6.3 Empirical Context: The Peruvian Civil War

The *Partido Comunista del Perú-Sendero Luminoso* (PCP-SL, henceforth Sendero Luminoso or Shining Path) launched its armed struggle in May 1980 in the department of

[26] "Regardless of their loyalties," writes Weinstein (2007, 250) on the residents of the *zonas altas* in Ayacucho, "active resistance [to the rebels] was the only way (...) to avoid death at the hands of the government forces." Note that in contrast to authors such as García-Godos (2006) and Del Pino (2010), I refrain from making claims about how community-based mobilization relates to processes of collective identification with the state.

[27] As outlined above, the two forms of mobilization are not mutually exclusive for the same community over time.

Ayacucho, as Peru was returning to civilian rule after more than a decade of military government. The years of armed conflict, insurgent terror, and state repression that followed caused immense suffering. It has been estimated that about 70 000 people died in Peru as a result of political violence in the 1980s and 1990s (Ball, Asher, Sulmont and Manrique, 2003).[28] While Sendero Luminoso has been judged as responsible for the majority of the reported fatalities (46%), 30% have been attributed to agents affiliated with the state (including the armed forces, police forces, paramilitary groups, and peasant *rondas*), and 24% to other perpetrators and circumstances, including the *Movimiento Revolucionario Túpac Amaru* (MRTA)[29], combat situations, and unidentified perpetrators (Comisión de la Verdad y Reconciliación, 2003*b*, Anexo 3, 34f.).[30]

Although the Peruvian civil war does not qualify as an 'ethnic war' according to conventional definitions, patterns of violence and recruitment both clearly revealed forms of ethnic discrimination. The rural and indigenous population bore the bulk of both insurgent and state violence; about 75 percent of the victims of lethal violence spoke native languages such as Quechua as their mother tongue, despite constituting less than 25 percent of the population (Comisión de la Verdad y Reconciliación, 2003*b*; Degregori, 2012*a*).[31] When the armed forces entered the emergency zones at the end of 1982,

[28]According to the Uppsala Conflict Data Program, the conflict between Sendero Luminoso and the Peruvian government reached the threshold of 25 battle-related deaths a year in 1982 for the first time, and it would do so from then onwards every year until 2000. During 1983-85 and 1988-1991 the conflict reached the 'war' intensity level, with more than 1000 battle-related deaths per calendar year. In the mid-1990s, the intensity of the conflict dropped drastically, and in 2000 the conflict did not reach the minimal fatalities threshold for the first time since 1982. Today, two factions of Sendero Luminoso are still active in remote areas of the country, and from 2007 to 2010 the conflict between Sendero Luminoso and the Peruvian government was coded active as a minor armed conflict again (Uppsala Conflict Data Program (Date of retrieval: 12/12/12) UCDP Conflict Encyclopedia: `www.ucdp.uu.se/database`, Uppsala University).

[29]In 1984, a second armed group, the Movimiento Revolucionario Túpac Amaru (MRTA), initiated its armed struggle against the Peruvian state. The MRTA was less abusive against the civilian population than Sendero Luminoso; its members used identifiers such as uniforms to differentiate themselves from civilians (Comisión de la Verdad y Reconciliación, 2003*b*, tomo VIII, 248f.). The MRTA is reported to be responsible for 1-2 % of the deaths caused during the armed conflict (Comisión de la Verdad y Reconciliación, 2003*b*, Anexo 3, 35; tomo VIII, 248).

[30]Please note that if not explicitly referring to the online version, detailed references to the report of the Comisión de la Verdad y Reconciliación (2003*b*) are based on the digital book version of the report, whose page numbers may differ from the online version.

[31]In Ayacucho, where indigenous languages were spoken by about three quarters of the population, 49 out of 50 victims were indigenous (Degregori, 2012*a*, 17). Ethnicity also played a role in determining the prospects of vertical mobility of individuals within the insurgent organization, as the leadership was generally constituted by light-skinned educated elites (Starn, 1995, 551; Starn, 1998, 229).

officers and soldiers deployed to fight the insurgency in the predominantly indigenous highlands had been drawn from the primarily Spanish-speaking population in Lima and other coastal cities (Tapia, 1997: 31; see also Degregori 1998). Recruits from Ayacucho were deliberately excluded from military service in the emergency zones during the initial stages of the armed forces' counterinsurgency campaign out of fear of infiltration (e.g., Tapia, 1997, 31; Degregori, 1998, 146).[32] While this recruitment strategy aimed to prevent infiltration of the armed forces, the fact that most of the deployed soldiers did not speak the dominant language of the local population had disastrous consequences for the quality of intelligence (e.g., Degregori, 1998, 141, 146). Many innocents, and mainly indigenous people, bore the bulk of the violence, as the armed forces were unable to effectively distinguish between insurgents and the ordinary population (e.g., Coronel, 1996; Del Pino, 1996).[33] Military repression was largely indiscriminate. As one of the most prominent experts covering the conflict writes, "the Armed Forces were blind, or, rather, color-blind. (...) [W]hen they saw dark skin, they fired" (Degregori, 1998, 143f.). While both state forces and insurgents committed large-scale massacres during this period, violence perpetrated by the rebels was far more selective. To quote Degregori (1998: 143) again: "[I]n these times Shining Path knew the people it killed (...); the peasants who submitted to Sendero's dictates would survive."

While being more selective in their application of violence during the early years of the war, the insurgents were not willing or not capable of protecting the population from state violence. Instead, when communities were attacked, Sendero cadres usually retreated to the mountains (e.g., Degregori 1998, 141; Isbell, 1992, 90; McClintock, 1989, 90; Fumerton, 2001, 482, 484; Fumerton, 2002, 114; Weinstein, 2007, 191f.). Security was not among the 'goods' that the rebels could provide, at least not for their alleged civilian allies (e.g., Weinstein, 2007). Yet despite it's devastating impact on the local

[32]The Peruvian civil war is thus a case where insurgents (but not state agents) recruited from excluded ethnic groups, despite the fact that the insurgents did not make any ethnic claims. Sources: ACD2EPR dataset Wucherpfennig et al. (2012), Version 1.2, and Ethnic Power-Relations Dataset EPR-ETH, Version 2, Cederman, Wimmer and Min (2010); `http://www.icr.ethz.ch/data` [most recent access March 13, 2013], GrowUp Research Front End (RFE) release 1.0. For detailed discussions of this variable in the crossnational dataset, see chapters 7 and 5.

[33]Sendero Luminoso members did not wear uniforms, but instead intermingled with ordinary citizens (see for instance Comisión de la Verdad y Reconciliación, 2003*b*, tomo II, 179).

population, the state's repression campaign 1983-85 did not achieve its goal of crushing Sendero Luminoso, which instead expanded to other areas of the country (e.g., Degregori, 1998, 145).

Before initiating its armed struggle in 1980, Shining Path had concentrated its political work on ideological education and on establishing support bases in rural areas, at first primarily in the provinces of Huamanga, Cangallo, and Víctor Fajardo (Del Pino, 1998, 160). During the early years of the war, Sendero Luminoso focused its violent actions on targeting the state infrastructure and representatives of the 'old' order, such as state and police officials, hacienda administrators, landlords, and merchants. It also engaged in acts of 'social cleansing'[34] by targeting cattle thieves, wife-beaters and adulters (e.g., Degregori, 1998; Isbell, 1992; Stern, 1998).[35] By establishing social order in state-neglected areas and by offering an alternative vision of the future for an impoverished rural population, Shining Path was able to gain varying degrees of sympathy and support (e.g., Del Pino, 1998, 161f.; McClintock, 1989, 62ff.). However, Shining Path's attempts to reshape the country through its revolutionary project also caused estrangement in rural communities early on. The key explanations for these fissures advanced in the literature are Shining Path's intransigent and violent authoritarianism, its ever-increasing demands for resources and recruits, the imposition of its hierarchy onto communal authority structures, and disrespect for religious practices, local sustenance patterns, and cultural traditions (e.g., Degregori, 1998; Manrique, 1998; Del Pino, 1998; Starn, 1995; Starn, 1998).[36]

The warring parties' strategies of violence and their abilities to mobilize followers varied considerably during the war, both geographically and temporally (e.g., Koc-Menard, 2007; Kent, 1993; Manrique, 1998). Though initially local residents had been proscribed from being recruited into the armed forces' units operating in the emergency

[34]E.g., Degregori, 1998, 136.

[35]These patterns were not limited to the countryside. In Lima's *barriadas*, Shining Path created its 'microlevel states' (Burt, 2007, 124).

[36]Anthropologists and historians have offered rich descriptions and for the emergence and trajectories of Peru's *rondas* with regards to distinct microregions and time periods. See, for instance, Coronel (1996), Coronel and Loayza (1992),García-Godos (2006), La Serna (2012) on towns, villages, or districts in Ayacucho, Del Pino (1996) and Fumerton (2002) on the Apurímac river valley, Benavides (1992) on the selva region, Manrique (1998) on the central sierra, Taylor (2006) on Cajabamba-Huamachuco, and Guerrero Bravo (2004) on Junín. See also Fumerton (2002), Tapia (1995) and Starn (1995) for analyses of Peruvian militias in several subregions.

zones, the state later shifted to the deployment of forces that more closely represented the local population (Burt, 2007, 59; Degregori, 1998, 143f., 146f.; Starn, 1995, 562; Tapia, 1997: 31). And while the state's counterinsurgency approach became more selective over time, the insurgents took the opposite direction, shifting increasingly from selective to indiscriminate violence against civilians (e.g., Degregori, 1998, 146f.; Del Pino 1998, 167; Starn, 1998, 237f.) The recruitment patterns of Sendero Luminoso also underwent transformations, as it relied increasingly on strategies of coercion as the war progressed (Del Pino, 1998; Portugal, 2008; Wood, 2008).

Some communities responded to civil war violence with the formation of peasant patrols, also known as *rondas campesinas* or *comités de autodefensa*. Both types of mobilization occurred, bottom-up and top-down: Some of the self-defense forces formed independently of the state, while others were compulsorily initiated by the armed forces (e.g., Degregori et al., 1996; Fumerton, 2002; Starn, 1995). As early as 1983, the armed forces began to relocate villages, to concentrate populations into settlements, and to organize peasant patrols in the emergency zones (e.g., Del Pino, 1996). By this time, in some places - such as the *puna* zones of Huanta or areas in the highlands of La Mar or the Apurímac river valley - some communities had already begun to independently organize their own pockets of resistance against the insurgents' violent authoritarianism (Coronel, 1993; Coronel, 1996; Coronel and Loayza, 1992; Degregori, 1996; Del Pino, 1996). Where possible, the armed forces imposed 'their' patrols onto these grass-roots organizations (e.g., Coronel, 1996, 51). In other cases, these early patrols were fully forced onto the peasants by the state. Not surprisingly, communities associated with civil defense patrols often became targets of repeated Sendero attacks, and typically they lacked both the means and backing of the state to protect themselves, once again forcing many to flee (e.g., Coronel, 1996). Whether communities willingly complied to concentrate in multicommunal defense bases and form peasant patrols or not, many of these early civil defense groups were later deactivated when military pressure, support and presence decreased during the second half of the 1980s (Degregori, 1996; Fumerton, 2002; García-Godos, 2006). Overall, the strategy of top-down mobilization of *rondas* was considered

a failure by subsequent policymakers (McClintock, 1999, 236). It was not until the late 1980s that counterinsurgent mobilization surged, and *rondas* spread through various regions of the country (e.g., Fumerton, 2002). Some of their leaders had previously participated in the insurgents' ranks (Del Pino, 1998, 169). In many places the self-defense organizations successfully defended or regained territorial control against the insurgents (Tapia, 1997; Tapia, 1995; McClintock, 1999). In the early 1990s, the *rondas* were officially incorporated into the state's counterinsurgency strategy, as the Peruvian government chose to officially recognize and arm them. (e.g., Fumerton, 2002; Coronel, 1996; Comisión de la Verdad y Reconciliación, 2003*b*; Del Pino, 1996; McClintock, 1999; Degregori et al., 1996; Ideéle, 1991; Mauceri, 1991; Starn, 1995).[37]

The local functions of the self-defense committees most typically included self-defense activities such as the formation of compulsory patrols and lookout posts. Some self-defense committees also pursued more offensive activities, such as searching and fighting insurgents outside their communities, either on their own or in mixed patrols with the military (García-Godos, 2008, 69; see also CVR, 2003).[38] To varying degrees, the self-defense committees also started to expand their roles and assume governing functions – in some rural communities, they became the "organizing principle of everyday life" (García-Godos, 2008, 69).

In the literature, the temporal variation in the proliferation peasant *rondas* against

[37]While the García government had already begun to hand out weapons to the peasant defense patrols during its final year, this strategy was fully adopted under the Fujimori regime, when the *comités de autodefensa* were placed under the legal control of the army (Burt, 2007; Tapia, 1997; Fumerton, 2001; McClintock, 1999). In 1991, Legislative Decree 741 recognized the self-defense committees as '*Comités de Autodefensa*' (*Decreto Legislativo No. 741*, N.d.). In 1993, the *Comando Conjunto de las Fuerzas Armadas* registered 4,205 *comités de autodefensa* with 235,465 members and 16,196 weapons across the country; half of these organizations were based in Ayacucho and Junín (Comisión Permanente de Historia del Ejército del Perú, 2010, 32).

[38]As outlined above, the self-defense committees were sometimes also responsible for human rights violations such as extrajudicial executions (Comisión de la Verdad y Reconciliación, 2003*b*). The presence or absence of soldiers has sometimes been a distinguishing factor regarding the conduct of the committees (CVR, 2003, Tomo II, Capítulo 1.5; Coronel, 1996, 81). For instance, while the *ronderos* of Chaca, which did not count on a military base, had been largely confined to the defense of their community (which suffered various attacks by the PCP-SL), those of Ccarhuahurán had a reputation for being more aggressive. They were accused of entering neighboring communities in mixed patrols with soldiers not only to seek members of the PCP-SL, but also to loot and to settle inter-community conflicts (CVR, 2003, Tomo II, Capítulo 1.5). The degree of the civil-defense forces' autonomy from the military varied considerably not only across space, but in many localities also over time. For instance, some communities incorporated civil defense organizations that had originally been imposed by the state into their communal structures by electing their leaders and by expanding their duties (Del Pino, 1993).

the insurgents is generally explained, first, by the shift in the state's counterinsurgency approach from indiscriminate violence to selective repression, and second, by the growing alienation between war-weary peasants and insurgents who proved to be increasingly abusive (e.g., Degregori, 1996; Degregori, 1998; Goodwin, 2001; Comisión de la Verdad y Reconciliación, 2003*b*). Beyond these general developments, however, the striking spatial variation in bottom-up mobilization has remained insufficiently explained for the Peruvian case. This also holds true for the effect of the indiscriminate state repression in the early 1980s on subsequent patterns of autonomous resistance. While some historians and anthropologists suggest that state violence delayed resistance against the insurgents, others maintain that it helped to promote it.[39]

## 6.4 Identification Strategies

I use geo-referenced data on towns and villages in Peru to evaluate the effect of indiscriminate state violence during the first years of the counterinsurgency campaign (1983-85) on counterinsurgent mobilization by ordinary citizens in the subsequent period (1986-88).

The empirical analysis combines two approaches to tackle what Holland (1986, 647) calls the "fundamental problem of causal inference". Applied to the research question at hand, the 'fundamental problem of causal inference' refers to the fact that it is not possible to observe the counterfactual outcomes of villages affected by state violence had they been spared. Observing the outcomes of villages that were not exposed to state violence had they been affected is equally impossible. This problem can be solved at the aggregate level when the 'treatment' of interest is randomly assigned, as in experimental studies, since random assignment ensures that the treatment is independent of potential outcomes. This makes it possible to plausibly estimate the average causal effect by looking at the difference in outcomes across treatment and control groups (Holland 1986: 947ff.; see also Angrist and Pischke, 2009, 12ff.; Morgan and Winship, 2007, 31ff.).

Since we are dealing with observational data, however, a simple comparison of the out-

[39]For an example of the former see Degregori (1998, 141f.), for an example of the latter see Fumerton (2002, 113f. – but see Fumerton 2002, 92).

comes of interest between villages which were targeted and villages which were unaffected by state violence would be misleading. Even though state violence was highly unpredictable and indiscriminate in the Peruvian case, targeting did not occur at random, and we thus cannot be sure that it was unrelated to other important factors correlated with the outcome of interest. This makes any type of direct comparison between targeted and unaffected communities highly suspicious if we are interested in the causal effect of state repression. To deal with this problem, I rely on a matched difference-in-differences and a regression discontinuity approach to account for observed and unobserved heterogeneity between treatment and control villages.[40]

I focus on the first nine years of the Peruvian armed conflict (i.e., the years between 1980 and 1988), a period marked by three sub-phases, each of which was defined by a distinct counterinsurgency approach (see section 6.4.1 below). The first period (1980-1982) marks the initial period of the armed conflict, during which the Peruvian state relied solely on police forces to combat the insurgency, and during which the first incidents of bottom-up peasant resistance against the insurgents were reported. The second period (1983-1985) encompasses the period during which indiscriminate state violence was common, and during which military attempts to form peasant *rondas* were widespread. In the third period (1986-1988), government repression eased and the policy of organizing *rondas* came to a pause (Fumerton, 2002; McClintock, 1999; García-Godos, 2006). Consistent with the way the variables are measured, I will refer to the first period as the 'pre-treatment period', the second period as the 'treatment period', and the third period as the 'post-treatment period.[41]

Geographically, the focus is on the regions most heavily affected by political violence during the first years of the conflict or, depending on the identification strategy, the border region of the emergency zones (see below). The unit of analysis is the '*centro*

[40]For studies combining alternative matching techniques with difference-in-differences estimation to examine the effects of civil war violence, see Lyall (2009) and Schutte (2012), for examples of propensity score matching with DiD in development economics, see van de Walle and Mu (2007) and Mu and van de Walle (2011).

[41]Note that the periodization as presented here differs from the one in Comisión de la Verdad y Reconciliación (2003*b*), since the latter's definitions differ across subregions, and since my periodization is based on yearly intervals due to data restrictions.

*poblado*', places that are permanently inhabited. This includes permanent settlements of various sizes and types, such as villages and towns.[42]

### 6.4.1 Three Periods of Political Violence

The counterinsurgency approach of the Peruvian government and armed forces underwent several major transformations (Comisión de la Verdad y Reconciliación, 2003*b*, tomo I, 59ff.; tomo IV, 34ff.; see also tomo VIII, 245ff.).[43]. I focus on the first nine years of the conflict, which can be divided into three periods, each marked by a distinct counterinsurgency approach (summarized in table 6.13 in the appendix).

1. Insurgency Onset (1980-82) - Pre-treatment Period: The first period encompasses the time between the initiation of armed struggle by Sendero Luminoso in May 1980 and the launch of the state's counterinsurgency campaign in the emergency zones in December 1982. Despite the growing size and power of the armed movement in the country's periphery, the government of Belaúnde first tried to fight the rebels solely by relying on police officers.[44] However, at the end of 1982, it was obvious that the police had no reasonable chance of success against the insurgents, and the designated emergency zones were placed under military rule, which marks the onset of the second period (Comisión de la Verdad y Reconciliación, 2003*b*, tomo I, 59ff.; tomo IV, 34ff.).

2. Militarization (1983-85) - Treatment Period: In December 1982, the armed forces were sent into the conflict zone, and the emergency zones were officially placed under military rule (Comisión de la Verdad y Reconciliación, 2003*b*, tomo I, 59ff.; tomo IV, 34ff.). Most of the military forces' gravest human rights violations fall

[42]On exact definitions and their variations over time, see for instance Dirección Nacional de Censos y Encuestas (2004). The Peruvian Truth and Reconciliation Commission geo-coded violent events based on the *centros poblados* as defined and geo-coded by the Instituto Nacional de Estadística y Informática (INEI) (2002), which therefore is also the reference of this study (Comisión de la Verdad y Reconciliación, 2003*a*).

[43]See also Coronel (1996).

[44]While a temporary state of emergency, which implies the suspension of civil liberties such as the freedom of assembly in affected regions, had been repeatedly placed on several provinces in Ayacucho, Huancavelica, and Apurímac, there was no military intervention in reaction to the rebels' attacks.

into this period, which roughly spans the years of 1983, 1984, and the first half of 1985. The armed forces lacked adequate intelligence and links to the population, and state repression was massive and highly indiscriminate (e.g., Comisión de la Verdad y Reconciliación, 2003*b*, tomo VIII, 251).[45] While both state forces and insurgents committed large-scale massacres during this period, violence perpetrated by the rebels was far more selective (e.g., Degregori, 1998). Any yet, while highly indiscriminate, state violence was neither entirely random nor predominantly indirect. In contrast to the campaign against the MIR in the 1960s (Rénique, 2010, 326), for instance, it was mainly conducted directly (Balcells, 2010), through massacres, kidnappings, and extra-judicial executions.[46] After the repression campaign by the armed forces, dynamics changed when García came into office in mid 1985.

3. Reorientation (1986-88) - Post-Treatment Period: The third period was characterized by strained relations between the government and the armed forces. García aimed at radically reorienting the struggle against the insurgents, and at least partially succeeded in curbing human rights abuses (Fumerton, 2002, 98ff.). During this period, the members of the civil-defense patrols imposed by the armed forces were permitted to return to full-time farming (Americas Watch, 1992, 7). Moreover, in 1985 the marines were replaced by the army, who more closely represented the local population (Degregori 1998, 146.; Coronel 1996, 58f., 93). Yet while the massive state repression which had marked earlier years was reduced, so were the general efforts of the armed forces, which now tended towards passivity. Resistant communities were left to their own devices, for better or worse (see, for instance, Del Pino, 1996, 149; García-Godos, 2008, 69; García-Godos, 2006, 152ff., Fumerton, 2002, 98ff.).[47]

[45] See also, for instance, Coronel (1996).

[46] This does not imply that the armed forces entirely abstained from indirect violence such as aerial bombings and mortar shelling attacks, neither during the early phase of the war (e.g., Comisión de la Verdad y Reconciliación, 2003*b*, tomo II, 179, fn. 489; see also McClintock, 1989), nor at later stages (e.g., Comisión de la Verdad y Reconciliación, 2003*b*, tomo IV, 296, tomo V, 21, tomo VI, 131, tomo VII, 271ff.).

[47] The government's counterinsurgency approach would again change when the conflict intensified in 1989, leading to a fourth phase. In 1989, García started to openly push the strategy of officially forming village patrols again (Americas Watch, 1992, 106), and Fujimori, who came to power in 1990,

### 6.4.2 Difference-in-Differences

The logic underlying difference-in-differences (DiD) estimation is to compare treated and untreated units before and after treatment; the difference between pre- and post-treatment outcomes is then compared across the two groups. Specifically, I first take the difference in *autodefensa* mobilization between the post- and the pre-treatment period in each locality. This difference is then compared between *centros poblados* exposed to state violence during the treatment period and those *centros poblados* which remained unaffected. Importantly, the DiD approach allows for unobserved heterogeneity, as long as the sources thereof are time-invariant or follow parallel trends in treatment and control units. If this is the case, then the bias induced by unobserved heterogeneity will be removed by differencing (Angrist and Pischke, 2009, 221ff.; Khandker, Koolwal, and Samad, 2010, 71ff.).

Although time-invariant unobserved heterogeneity can be accounted for by differencing, one might still wonder about sources of time-variant heterogeneity and selection bias. Therefore, I combine the DiD approach with propensity-score methods to deal with observable pre-treatment characteristics which might be sources of time-variant heterogeneity and selection bias (Khandker, Koolwal, and Samad, 2010, 61, 71ff., see also Mu and Van de Walle, 2011, Van de Walle and Mu, 2007). The propensity score is the conditional probability of being exposed to the treatment given observable pre-treatment covariates (Rosenbaum and Rubin, 1983): $p(\mathrm{X}) \equiv \Pr(\mathrm{T}{=}1|\mathrm{X})$. Rosenbaum and Rubin (1983) show if they are no ommitted variables affecting selection into treatment and the outcome variable, and if the condition of common support is satisfied, matching on the one-dimensional propensity score $p(\mathrm{X})$ can substitute for matching on X to eliminate selection bias (see also Khandker, Koolwal, and Samad, 2010, 53ff.; Becker and Ichino,

strongly pushed this strategy further (e.g., McClintock, 1999, 235ff.). The fourth phase finally saw the widespread endorsement of counterinsurgent *rondas* by the population. Eventually the phase then culminated in the capture of the insurgents' ideological and strategic head Abimael Guzmán as well as other central committee members of the Shining Path, which marked the crucial turning point in the internal armed conflict (Comisión de la Verdad y Reconciliación, 2003*b*; McClintock, 1999). The Truth and Reconciliation Commission also identified a fifth period (September 1992 - November 2000), which ended when former president Alberto Fujimori, who would later be convicted of human rights abuses committed during his presidency, left the country (Comisión de la Verdad y Reconciliación, 2003*b*, tomo I, 59ff.; tomo IV, 34ff.).

2002, 359f.).

I use substantive knowledge of selection into treatment to estimate the propensity score for each unit. The propensity score is then used, first, to pre-screen the data and to limit the difference-in-differences estimation to the region of common support, i.e., to the region where the propensity score intervals of treated and control units overlap (see also Angrist and Pischke, 2009, 90f.), and second, to pursue different strategies to match non-targeted villages to targeted ones based on the propensity score (Angrist and Pischke, 2009, 80ff.; Khandker, Koolwal, and Samad, 2010, 53ff.). Restricting the sample to the common support ensures that no extrapolation beyond cells with both treatment and control units is necessary (Angrist and Pischke, 2009, 77, 91) and that the estimation is limited to comparable units in terms of initial conditions determining selection into treatment and time-variant heterogeneity (Khandker, Koolwal and Samad, 2010; Mu and van de Walle, 2011; van de Walle and Mu, 2007).

In addition to DiD regressions in the region of common support, I combine the DiD approach with different propensity score matching techniques (radius, stratification, kernel, and nearest neighbor).[48] The effect of state violence is then calculated as the average treatment effect on the treated across villages exposed to state violence and non-affected units, but in all specifications restricted to the region of common support.[49]

As outlined above, I expect variables such as community-level cohesion, insurgent internal control, and military capabilities to be important determinants of counterinsurgent mobilization. Within the period of interest, I assume that these factors change largely as a result of the 'treatment' (i.e. state violence) itself, and as a function of a specific set of initial conditions which are likely to influence selection into treatment.

[48] All matching estimates presented below are based on the algorithms provided by Becker and Ichino (2002).

[49] To sum up formally, in a difference-in-differences setting the average impact estimate can be written as follows (Khandker, Koolwal, and Samad, 2010, 72, 80; see also Mu and Van de Walle, 2011, 717f.:) DiD= E ($Y^T_{i1}$-$Y^T_{i0}$ | T=1) - E ($Y^C_{i1}$-$Y^C_{i0}$ | T=0), where T=1 denotes treatment (i.e., exposure to violence) and T=0 non-treatment, and $Y^T_i$ and $Y^C_i$ the outcomes of targeted and non-targeted units at the pre- and post-treatment period (0,1). When combined with matching, for village $i$ the impact estimate can be written as $DiD_i$=($Y^T_{i1}$-$Y^T_{i0}$) - $\sum_{j \epsilon C}$ $\omega$(i,j)($Y^C_{j1}$-$Y^C_{j0}$) where $\omega(i,j)$ is the weight assigned to the $j$th control when using matching methods to compare it to the targeted unit $i$. In this study, matching will be based on the propensity score, i.e., the probability of receiving treatment conditional on a set of covariates X, defined as $p$(X) ≡ Pr(T = 1|X).

To control for these initial conditions, I use substantive knowledge on selection into the 'treatment' (i.e., the exposure to state violence during the treatment period) to estimate the propensity score, i.e., the probability of treatment exposure for each unit, given several crucial covariates.

Four variables are used to estimate the propensity score: Prior insurgent presence, prior insurgent violence, the distance to the nearest province capital, as well as the presence or absence of military rule during the first months of the military counterinsurgency campaign. All of these variables are assumed to have an impact on the 'treatment' probability as well as subsequent trends and outcomes. Note that I do not control for insurgent internal control, as internal control was consistently high in the pre-treatment period, thus not being related to the exposure to state violence, and later changed largely as a result of processes induced by state violence (e.g., Wood, 2008). I also do not control for local social cohesion for similar reasons: Historical evidence suggest that state violence was not directly and systematically related to variation in local levels of social cohesion – apart from determining levels of insurgent control, which I control for –, while on the other hand social cohesion was most likely at some places deeply affected by state and insurgent violence (for instance through the process of migration). I thus assume parallel trends in variation over time between treated and untreated villages in the (counterfactual) absence of state violence. The results of the DiD analysis are presented in section 6.5.

Geographically, I focus on the three departments which were most heavily affected by political violence during the first years of the internal armed conflict, namely Ayacucho, Huancavelica, and Apurímac. The unit of analysis is the village or town (i.e., a *'centro poblado'* as defined by INEI, 2002). A map of the study region and the respective administrative units is provided in figure 6.1).


Figure 6.1: Map of Study Region (DiD)

### 6.4.3 Spatial Regression Discontinuity

As an alternative identification strategy, I rely on a regression discontinuity design to examine the effect of generalized military repression on the propensity of local communities to organize counterinsurgent resistance. I will methodologically make use of the fact that the repression campaign of the Peruvian armed forces 1983-85 was restricted to predefined administrative boundaries.[50]

Regression discontinuity designs constitute one particular type of natural experiments that exploit the fact that exposure to a given treatment is known to be fully or partially determined by the values of one or several observed covariates (Imbens and Lemieux, 2008; see also Dunning, 2012, 63ff.; Khandker, Koolwal, and Samad, 2010, 103ff.; Angrist and Pischke, 2009, 251ff.). Under these conditions, exposure to treatment may be exogenous or close to random within a limited region around the assignment threshold, and hence, independent of potential confounders. This in turn allows for the identification of local average treatment effects for units that are located in a narrow region above and below the assignment threshold.

The Peruvian context lends itself to a spatial application of the regression discontinuity design, since the probability of exposure to state violence was largely determined by geographic boundaries.[51]

In the region and time period of interest, the Peruvian emergency zones were legally confined to selected provinces and districts, based on the insurgents' alleged regional strongholds. Within the emergency zones, civil liberties were severely restricted, civil authorities subordinated under military rule, and the population exposed to the armed forces' counterinsurgency campaign. Yet while military activities were *de iure* and also largely *de facto* confined to these boundaries, the operations of the insurgents clearly were not (Tapia, 1997, 58f., see also Fumerton, 2002, 110f.).

[50] *Decretos supremos* in Desco, 1989, 345ff. and *Normas legales - Revista de Legislación y Jurisprudencia*, various volumes.

[51] For examples of distinct modeling approaches to geographic regression discontinuities, see for instance Keele and Titiunik (2011), Keele, Titiunik and Zubizarreta (2012), and Dell (2010); for spatial 'fuzzy' regression discontinuity designs, see for instance Basten and Betz (2013).

To quote the leader of a *ronda* in the Apurímac river valley, where the emergency zone border coincided with a major river:

> "This was our worst dilemma, the biggest problem, as we would say: that some areas were under emergency and others were not. Because in the Ayacucho emergency zone we were deprived of all our rights. As everyone knows, there were massacres by the Navy, the Police, the Army. However, close from here was an area not under emergency, and this is where the Senderistas took refuge. (...) Sendero could just cross the river to be in a liberated zone, not in the emergency area" (Huillca, 1993, 44; my translation)

Relying on archival material and geographic information systems, I have reconstructed and mapped the emergency zone borders during the period of interest, taking into account that some of the administrative borders have changed since the period of interest.[52]

Map 6.2 shows the region (with elevation in the background) and the outer borders of all provinces placed under emergency and military rule at least once during 1983, 1984, and the first half of 1985. In the regression discontinuity design, the analysis focuses on the region around the outer Northeastern border of the emergency zone, where the boundary of the emergency zone was the most stable over time. Figure 6.3 shows the relevant subregion, along with the *centros poblados* within 75'000 meters of Euclidean distance to the emergency zone boundary. Restricting the sample to villages and towns that are located within the neighborhood of the emergency zone border, the effect of state violence can be estimated in a framework that allows for observed and unobserved heterogeneity.

Due to the strong yet non-deterministic relationship between geographic location and exposure to state violence, I will rely on a 'fuzzy' regression discontinuity analysis which yields a 2SLS approach (Hahn, Todd and Van der Klaauw, 2001; Van der Klaauw, 2002). The main focus accordingly is on two distinct quantities of interest: First, the intention-to-treat principle is applied to analyze the effect of generalized state

[52] Geographical information is based on digital maps compiled by the *Instituto Nacional de Estadística e Informática* (INEI, 2002) and information provided by the *Dirección Nacional Técnica de Demarcación Territorial* (PCM-DNTDT-2011, Presidencia del Consejo de Ministros - Dirección Nacional Técnica de Demarcación Territorial, 2011).


Figure 6.2: Provinces under Emergency in Treatment Period


Figure 6.3: Map of Study Region (RD)

repression on counterinsurgent mobilization. The intention-to-treat estimate is a conservative yet robust and transparent way of analyzing natural experiments in general and fuzzy regression discontinuity designs in particular (Dunning, 2012, 149-153). Second, consistent with the 'fuzzy' logic of the design, an instrumental variable approach is used to estimate the local average treatment effect on 'compliers' (Hahn, Todd and Van der Klaauw, 2001; Van der Klaauw, 2002).[53] Finally, I present additional results that combine the spatial regression discontinuity design with matching and covariate adjustment to account for imbalances between treated and control units.

### 6.4.4 Estimation

In both the difference-in-differences and the regression discontinuity analysis, I rely on ordinary least squares (OLS) models, despite the fact that the dependent variable is binary.[54] It is not necessary to rely on more complex models (such as probit or logit), as the goal of this chapter is to estimate the average causal effect (rather than individual outcomes) across different identification strategies, and as OLS regression always provides the minimum mean square linear approximation to the conditional expectation function (Angrist, 2006, 35f.; Angrist and Pischke, 2009, 197ff.). That OLS is the appropriate choice is straightforward to see in the case of the basic, fully saturated models, but even in the more complicated and non-saturated models, the treatment effects are very likely to be almost identical across OLS and nonlinear models, with the OLS models having the advantage of maximized and robust comparability across models (Angrist, 2006, 35f.; Angrist and Pischke, 2009, 197ff.).[55]

### 6.4.5 Measurement of Key Variables

Before discussing the main results, I describe the data used in the empirical analysis.

*Autodefensa Mobilization:* The variable that captures counterinsurgent mobilization

[53] See also Angrist and Pischke (2009, 259-267).

[54] An exception is the estimation of the propensity score, which is based on a probit regression.

[55] The same arguments apply to two stage least squares estimation (2SLS) (Angrist, 2006, 35f.; Angrist and Pischke, 2009, 197ff.).

is a dummy variable indicating whether a given *centro poblado* was affected by violence against or perpetrated by *rondas campesinas* or *comités de autodefensa* in the post-treatment period (1986-88).[56] In the DiD analysis, the dependent variable is measured as the difference in *autodefensa* mobilization between the pre- and the post-treatment period. Geo-referenced data on various types of violence are based on several datasets provided by the Peruvian Truth and Reconciliation Commission (Comisión de la Verdad y Reconciliación, 2003*b*, see elaborations below). By focusing on *autodefensa* mobilization in the first and third period, the focus is placed on (the difference in) bottom-up mobilization, although the type of mobilization cannot be measured directly.

*State Violence:* The independent variable is a dummy variable indicating whether a given *centro poblado* was affected by violence perpetrated by agents of the state in the treatment period (1983-85).

*Prior Insurgent Violence:* This is a dummy variable indicating whether a given *centro poblado* had been subject to Sendero violence prior to the onset of the counterinsurgency campaign (1980-82).[57]

The variables 'autodefensa mobilization', 'prior insurgent violence' and 'state violence' are based on geo-referenced data provided by the Peruvian Truth and Reconciliation Commission (*Comisión de la Verdad y Reconciliación*, henceforth CVR). The CVR was created by the provisional government in 2001 with the mandate to elucidate 20 years of political violence (1980-2000). Focusing on human rights violations during the years of the civil war and the ensuing Fujimory period, the CVR dedicated 18 months to the collection of data throughout the country. The CVR came up with 15,220 individual testimonies as well as 422 testimonies from public hearings.[58] In addition to its

[56]Ideally, one could measure mobilization directly. However, since no systematic comparative data on counterinsurgent recruitment or the number of counterinsurgent groups is available for the period of interest, I use violence against or perpetrated by *ronderos* as a behavioral measurement of the dependent variable.

[57]Note that insurgent violence during the pre-treatment period was predominantly selective, with insurgents primarily targeting delinquents and local authorities. Insurgent violence also had the effect of primarily inducing richer peasants to flee, while it was more often poorer villagers with access to less dispersed family networks and equipped with less social, cultural, and economic capital who stayed behind. Fumerton (2001,480) argue that that the flight of richer peasants had the effect of homogenizing communities, thereby increasing their capacity for counterinsurgent collective action.

[58]For an overview of the data collection see `http://www.cverdad.org.pe/` [latest access September 24, 2009].

final report (Comisión de la Verdad y Reconciliación, 2003*b*), the CVR compiled several datasets, which cover information on victims (killed and disappeared individuals) and violent events.[59] A substantial part of this information was geo-coded at the *centro poblado* level.

Due to potential biases of the CVR data due to self-selection and underreporting (see also Ball et al. (2003)), I follow León (2012) in combining the different datasets and in working with dummy variables of violence exposure for all CVR-based variables, rather than focusing on the intensity or different types of violence.

*Prior Insurgent Presence:* I include a variable measuring insurgent territorial control prior to the onset of the counterinsurgency campaign. Insurgent presence by the end of 1982 is coded at the district-level and based on Noel (1989), a former General who commanded an infantry division in the emergency zones. By then, Sendero Luminoso had established its presence in 26 districts in the departments of Ayacucho, Huancavelica, and Apurímac (Noel, 1989, 26,cited in: Tapia, 1997, 34).

*Initial Military Rule* In the difference-in-differences analysis, this variable captures whether a given province was placed under emergency and military rule at the very onset of the counterinsurgency campaign (treatment period). It codes the first provinces that were legally placed under military rule before the army moved into the emergency zones.[60] Provinces and districts under emergency and military rule were coded as listed in Desco (1989, 345ff.) and as specified in the *decretos supremos* re-published in various issues of the *'Normas legales. Revista de Legislación y Jurisprudencia'*, accessed in the *Archivo del Congreso de la República*.[61]

*Emergency Zone Borders:* In the regression discontinuity design, the analysis focuses

[59]The CVR used the following categories: disappearance, detention, forced recruitment, kidnapping, assassination, battle-related death, extrajudicial execution, torture, and sexual violence.

[60]I coded only those provinces under military rule at the very onset of military rule in the emergency zones (the first 60 days) in order to avoid endogeneity problems in the estimation of the propensity score. The regions that were covered by the respective legal decree were the following: The provinces of Huanta, La Mar, Cangallo (including then Vilcas Huamán), Víctor Fajardo, and Huamanga in Ayacucho, the province of Andahuaylas in Apurímac, and the province of Angaraes in Huancavelica. However, the reported results remain substantially the same if all provinces under emergency during the first couple of months - or even all provinces under emergency at least once during the treatment period - are included.

[61]I thank Paolo André Rivas Legua for his research assistance in the Congress archive.

on the region around the outer Northeastern border of the emergency zone, where the boundaries of the emergency zone were stable over the time period of interest.[62] Again, the emergency zones were coded as listed in Desco (1989, 345ff.) and as specified in the *decretos supremos* re-published in various issues of the *'Normas legales. Revista de Legislación y Jurisprudencia'*. Since some of Peru's administrative boundaries changed over time, territorial consistency was checked and where needed adjusted (PCM-DNTDT-2011, Presidencia del Consejo de Ministros - Dirección Nacional Técnica de Demarcación Territorial, 2011).

*Distance to Province Capitals:* The proximity to the nearest provincial capital serves as a measure of territorial control by state forces. In insurgencies, rebel strongholds are typically concentrated in remote rural areas whereto coercive state power is difficult to project (Kocher, 2004).[63] Geographic proximity to the closest province capital from each *centro poblado* is measured in Euclidean distance (meters), based on a digitized map of political-administrative units (INEI, 2002).[64] *Elevation:* In the Peruvian context, elevation is an important determinant of various geographical, economic, and social variables (e.g., Coronel, 1996, 31ff.), such as levels of social stratification that reach beyond standard measures of ethnicity and poverty (e.g., Degregori, 2012*b*, 55). While as a time-invariant measure this variable has not to be included in the DiD analysis, it is a relevant covariate in the RD design. Information on elevation per village was calculated by bilinear interpolation from the 30 arc-second digital elevation model of South America (GTOPO30), provided by the U.S. Geological Survey's Center for Earth Resources Observation and Science (EROS, U.S. Geological Survey's Center for Earth Resources Observation and Science, N.d.).[65]

[62]Here, the emergency zone borders collide with the border segments of Tayacaja (Huancavelica), Huanta (Ayacucho), La Mar (Ayacucho), and Andahuaylas (Apurímac).

[63]This holds also true in the Peruvian case, and despite the fact that the initial mobilization and recruitment activities of Sendero Luminoso militants were concentrated in universities and other educational institutions and thus centered largely in towns (e.g., Weinstein, 2007, 117,119ff.).

[64]Distance measures were calculated in ArcGIS10. The projection to minimize distortion is shown in map 6.1.

[65]GTOPO30 is a global digital elevation model (DEM) resulting from work led by the U.S. Geological Survey's EROS Data Center and conducted in collaboration with the National Aeronautics and Space Administration (NASA), the United Nations Environment Programme/Global Resource Information Database (UNEP/GRID), the U.S. Agency for International Development (USAID), the Instituto Nacional de Estadística Geografíca e Informática (INEGI) of Mexico, the Geographical Survey Institute

## 6.5 Results

### 6.5.1 Difference-in-Differences

I start with a probit model (see table 6.2) to estimate the propensity score, based on all 12,336 *centros poblados* in the departments of Ayacucho, Apurímac, and Huancavelica. 'Prior insurgent presence' is a variable identifying the rebels' initial strongholds, where the insurgents enjoyed the highest levels of territorial control and noncombatant support. The variable 'prior insurgent violence' accounts for variation in the extent to which communities were already subject to Sendero violence prior to the onset of the counterinsurgency campaign. 'Proximity to the nearest provincial capital' is a proxy for territorial control of the armed forces, which were mainly headquartered in provincial capitals. Finally, 'emergency zone status' is assumed to be a strong predictor of initial state violence and hence, subsequent dynamics. Table 6.3 gives descriptive information on the region of common support ($.00630515 < p(\mathrm{X}) < .65111304$), and table 6.14 in the appendix gives an overview of the propensity score intervals within the region of common support. Within each propensity score interval, the average propensity score and the means of the covariates used to estimate the propensity score are balanced between treated and control units.

Restricting the sample to the region of common support ensures that targeted villages ('treated units') will be comparable to spared ones ('untreated units') in terms of their predicted probabilities to be exposed to state violence. 378 untreated units outside the region of common support are therefore dropped in all analyses that follow in this section to ensure comparability between villages that were exposed to state violence and those that were not. Table 6.15 in the appendix presents the summary statistics on the *centros poblados* within the region of common support as well as separate ones for affected ('treated') and unaffected ('control') units.

I now turn to the estimation of the effect of violence on counterinsurgent mobilization in all *centros poblados* in the region of common support. Model I in table 6.4 shows the

(GSI) of Japan, the Manaaki Whenua Landcare Research of New Zealand, and the Scientific Committee on Antarctic Research (SCAR). Elevation by village measures were calculated in ArcGIS10.

Table 6.2: Probit Regression of State Violence

| | |
|---|---|
| Prior Insurgent Presence | 0.066 |
| | (0.054) |
| Initial Military Rule | 1.175*** |
| | (0.057) |
| Prior Insurgent Violence | 1.582*** |
| | (0.101) |
| Distance to Province Capital | -0.000 |
| | (0.000) |
| Constant | -2.435*** |
| | (0.062) |
| Log-Likelihood | -1672.408 |
| $\chi^2$ | 1065.494 |
| Pseudo $R^2$ | 0.2416 |
| N | 12336 |

* p<0.05, ** p<0.01, *** p<0.001

Table 6.3: Estimated Propensity Score

| | |
|---|---|
| Region of common support | .00630515 < p < .65111304 |
| Obs. in region of common support | 11,958 |
| Mean | .044589 |
| Std. dev. | .0804179 |
| Number of blocks | 7 |
| Balancing property satisfied | Yes (p < 0.01) |

results for an ordinary least squares regression where all periods are collapsed into one, and where the difference between the pre- and post-treatment outcome is the dependent variable. Model II gives the same specification with standard errors clustered at the level of districts. Model III controls for the same covariates that were used to obtain the propensity score, while model IV uses district-clustered standard errors in addition. We can see that state violence has a positive effect on subsequent counterinsurgent mobilization in all specifications.

In a two-period set-up, as shown in table 6.5, the interaction between the treatment and time variable gives the coefficient of interest.[66] Again, I show results for the same specification with standard errors clustered at the district level in model II, while model

[66]In a regression framework with two periods, the DiD can be specified as follows: $Y_{it} = \alpha + \beta T_{it} t + \delta T_{it} + \phi t + \epsilon_{it}$. The coefficient of the interaction term between the period ($t$) and treatment dummy ($T$) indicates the average effect (Khandker, Koolwal, and Samad, 2010, 72f., 190; see also Angrist and Pischke, 2009, 233ff.).

III controls for the same covariates that were used to obtain the propensity score. Model IV uses district-clustered standard errors in addition. As expected, the results remain the same for the effect of state violence.

Table 6.4: DiD Estimates I: Autodefensa Mobilization

| | I | II | III | IV |
|---|---|---|---|---|
| State Violence | 0.047*** | 0.047** | 0.039*** | 0.039** |
| | (0.010) | (0.015) | (0.010) | (0.013) |
| Prior Insurgent Presence | | | 0.001 | 0.001 |
| | | | (0.003) | (0.005) |
| Initial Military Rule | | | 0.005*** | 0.005** |
| | | | (0.001) | (0.001) |
| Prior Insurgent Violence | | | 0.032 | 0.032 |
| | | | (0.022) | (0.020) |
| Distance to Province Capital | | | 0.000*** | 0.000 |
| | | | (0.000) | (0.000) |
| Constant | 0.001*** | 0.001** | -0.005*** | -0.005 |
| | (0.000) | (0.000) | (0.001) | (0.003) |
| Rsquared | 0.024 | 0.024 | 0.030 | 0.030 |
| Clusters | | 285 | | 285 |
| N | 11958 | 11958 | 11958 | 11958 |

* p<0.05, ** p<0.01, *** p<0.001

Table 6.6 provides alternative DiD estimates.

Shown are the results for four different matching approaches (see also Khandker, Koolwal, and Samad, 59ff.; Becker and Ichino, 2002, 361ff.): Model I in the first column depicts the results for radius matching, where each treated village is matched to those control units whose propensity score differs no more than one standard deviation from the propensity score of the treated unit. In other words, all control units are matched to those treated units whose propensity score is located within the region of one propensity score standard deviation.[67] In model II the stratification method is used, based on the propensity score intervals (as depicted in table 6.14 in the appendix) for which both the common support condition as well as the balancing property are satisfied, i.e., within which none of the covariates differ significantly across targeted and unaffected *centros poblados*. The average treatment effect on the treated is then calculated within each interval. By taking the distribution of treated units across the different strata as weights,

[67]As shown above, the standard deviation of the propensity score equals .0804179.

Table 6.5: DiD Estimates II: Autodefensa Mobilization

| | I | II | III | IV |
|---|---|---|---|---|
| Period | 0.001*** | 0.001** | 0.001*** | 0.001** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| State Violence | 0.004 | 0.004 | -0.003 | -0.003 |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| Period x State Violence | 0.047*** | 0.047** | 0.047*** | 0.047** |
| | (0.010) | (0.015) | (0.010) | (0.015) |
| Prior Insurgent Presence | | | 0.002 | 0.002 |
| | | | (0.001) | (0.002) |
| Initial Military Rule | | | 0.002*** | 0.002*** |
| | | | (0.001) | (0.001) |
| Prior Insurgent Violence | | | 0.026* | 0.026** |
| | | | (0.011) | (0.009) |
| Distance to Province Capital | | | 0.000*** | 0.000 |
| | | | (0.000) | (0.000) |
| Constant | 0.000 | 0.000 | -0.003*** | -0.003* |
| | (0.000) | (0.000) | (0.001) | (0.001) |
| Rsquared | 0.029 | 0.029 | 0.035 | 0.035 |
| Clusters | 11958 | 285 | 11958 | 285 |
| N | 23916 | 23916 | 23916 | 23916 |

* p<0.05, ** p<0.01, *** p<0.001

the overall effect of interest is calculated as the weighted average of these interval-specific estimates.

An alternative to stratification matching is kernel matching, applied in model III. Here, each treated unit is matched to the weighted average of all non-treated units, where the weights are determined by the difference in propensity scores. Finally, model IV shows the results for nearest neighbor matching, where for each unit in the treatment group the nearest control unit is searched for, and where again the proximity is defined by the propensity score.[68]

Across all matching techniques, the effect of state violence on counterinsurgent mobilization in the subsequent period remains positive and statistically significant.

The key identification assumption underlying the difference-in-differences approach is that there is no unobserved heterogeneity that causes trends to differ between treatment and control groups. While the parallel trends assumption cannot be tested directly, I

[68]In table 6.6, the result is shown for the random draw technique in case of several nearest neighbors. If alternatively equal weights are assigned to all nearest neighbors, the results are almost identical (att = 0.030, std.err. 0.012, t= 2.496).

Table 6.6: DiD Estimates III

| | Radius DiD† | Stratified DiD†† | Kernel DiD††† | Neighbor DiD†††† |
|---|---|---|---|---|
| DiD (ATT) | 0.046*** | 0.037** | 0.038* | 0.030* |
| Std. Err. | 0.010 | 0.012 | 0.013 | 0.012 |
| t | 4.598 | 3.116 | 2.940 | 2.486 |
| N treated | 536 | 536 | 536 | 536 |
| N control | 11422 | 11422 | 11422 | 465 |

* p<0.05, ** p<0.01, *** p<0.001
All estimates restricted to region of common support as defined by the propensity score.
† Radius matched DiD; analytical standard errors; radius equals one standard deviation.
†† PS Stratification matched DiD; analytical standard errors.
††† PS Kernel matched DiD; bootstrapped standard errors (Gaussian kernel,100 repetitions).
†††† PS Nearest Neighbor matched DiD; analytical standard errors.

use a series of placebo tests with pre-treatment outcomes as the dependent variables. Clearly, a significant effect would cast doubt on the identification assumptions of the results presented above. As shown in table 6.16 in the appendix, however, there are no effects of state violence on *autodefensa* mobilization in prior periods, which increases our confidence that the identification assumptions are valid.

In sum, the results suggest that communities directly exposed to state violence were more likely to resist the insurgents when left to their own devices in subsequent periods. The effect is positive and robust to a series of alternative estimation techniques.

### 6.5.2 Regression Discontinuity

I now turn to the regression discontinuity design. As outlined above, 'fuzzy' regression discontinuity analysis mirrors the logic of inference in instrumental variable designs (Hahn, Todd and Van der Klaauw, 2001; Imbens and Lemieux, 2010; Lee and Lemieux, 2010), and can hence be estimated through a 2SLS approach.[69]

Table 6.7 reports the first stage results, i.e. the results of an OLS regression that features direct exposure to state violence as the dependent variable. Emergency Zone is a

[69]For an example of a 'fuzzy' spatial regression discontinuity, see Basten and Betz (2013).

dummy variable indicating whether a given *centro poblado* is located inside or outside the emergency zone. Distance measures the Euclidean distance from a given village to the nearest point on the emergency zone boundary. It is normalized to zero at the border, i.e., takes on negative values for *centros poblados* outside the emergency zone. EZ x Distance represents the interaction of the Emergency Zone dummy with the distance variable. The results are shown for various bandwidths from 75 to 25 kilometers on each side of the border. The first stage results indicate that being located inside the emergency zone is indeed positively associated with state violence. An F-test of the excluded instrument (i.e., being located inside or outside the emergency zone) passes the conventional threshold of 10 for all specifications (e.g., Sovey and Green, 2011).

Table 6.8 shows the results of the reduced form equation, which yields the intention-to-treat estimate. The ITT estimate represents the overall effect of generalized state repression on the targeted region, regardless of whether a certain village or town is directly affected by state violence or not. We can see that being located in the emergency zone increases the average probability of counterinsurgent mobilization, and that this effect is statistically significant.

The second stage results are presented in table 6.9. The models show the results again for various bandwidths, from 25 to 75 kilometers on each side of the border. The specifications I-XII also differ according to whether they include fixed effects at the level of border segments. The four border segments are defined through the intersection of province and emergency zone borders, and each *centro poblado* is assigned to the segment of its nearest point on the emergency zone boundary. The IV estimates again suggest a substantial and positive effect of state violence on counterinsurgent mobilization, and again this effect is significant in statistical terms across all specifications.

Next, I illustrate the results graphically. I follow the standard procedure for one-dimensional forcing variables and plot the observed mean of the respective variables for 2.5km bins of Euclidean distance to the border. It is important to keep in mind that the Euclidean distance to the nearest point on the border represents a simplified way of characterizing the relationship between a geographic location and a boundary

(Imbens and Zajonc, 2011; Keele and Titiunik, 2011). Specifically, this implies that the interpretation of the graph is only straightforward in the immediate region of the emergency zone border, i.e., around the threshold where Euclidean distance equals zero. One potential pitfall of RD analysis, especially when local nonparametric estimation is not feasible, is that the discontinuity identified at the border might be the result of a misspecification of the functional form (Imbens and Lemieux, 2010; Lee and Lemieux, 2010). I therefore plot as well the smoothed line from linear and polynomial regressions where the emergency zone dummy is interacted with distance and quadratic or cubic polynomials thereof, respectively. Shown are also the 95% confidence intervals.

Figure 6.4 depicts the results for the first stage, i.e. exposure to state violence as a function of geographic location, and figure 6.5 presents the graph for the ITT equivalent. Shown are the results for the bandwidths of 75 and 35 kilometers. Of primary interest is the discontinuity where distance equals 0, i.e., the border of the emergency zones. The graphs consistently suggest that the discontinuity at the emergency zone border is not an artifact of the functional form. Figure 6.6 in the appendix shows the results for placebo tests with the pre-treatment outcome as the dependent variable; there is no mobilization and hence, no variation for all bandwidths during the pre-treatment period in the RD study region.

In contrast to DiD analysis, the assumption that covariates follow parallel trends is not sufficient for causal identification when it comes to RD analysis. Standard RD analysis also requires crucial pre-treatment variables to vary smoothly across the border. Thus, I repeat the exercise with relevant covariates. In the Peruvian context, one important variable that we would like to see vary smoothly across the border is elevation. Elevation is correlated with numerous geographical, economic, and social variables (e.g., Coronel, 1996, 31ff.). It has for instance been argued to underlie dimensions of social stratification that reach beyond conventional measures of ethnicity and poverty (e.g., Degregori, 2012*b*, 55). Figure 6.7 in the appendix shows that the regression line for elevation varies smoothly across the boundary once we specify a quadratic functional form. However, repeating the exercise with other key variables reveals that this is not

unambiguously the case for all covariates and bandwidths. For instance, figure 6.8 in the appendix shows that the identification assumption of smooth variation across the border does not hold as clearly for the covariate of prior insurgent violence, especially once we exclude data points farther away from the boundary.

Fortunately, the presence of covariate imbalances does not necessarily imply that the RD approach has to be abandoned (Keele, Titiunik and Zubizarreta, 2012; Keele, 2012; Linden and Adams, 2012). Instead, various techniques for covariate adjustment are available, the results for some of of which are shown below.

Table 6.7: First Stage Results (OLS): State Violence

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| Emergency Zone | 0.063*** | 0.053*** | 0.068*** | 0.060*** | 0.083*** | 0.095*** |
| | (0.011) | (0.012) | (0.013) | (0.015) | (0.017) | (0.021) |
| Distance | 0.000*** | 0.000*** | 0.000*** | 0.000*** | 0.000*** | 0.000* |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| EZ x Distance | 0.000 | 0.000 | -0.000 | -0.000 | -0.000*** | -0.000** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Constant | 0.015*** | 0.017*** | 0.019*** | 0.023*** | 0.026*** | 0.030*** |
| | (0.004) | (0.004) | (0.005) | (0.006) | (0.007) | (0.009) |
| Bandwidth | 75km | 65km | 55km | 45km | 35km | 25km |
| Rsquared | 0.044 | 0.044 | 0.035 | 0.034 | 0.033 | 0.036 |
| F | 125.3545 | 112.3506 | 85.07323 | 68.63038 | 43.67839 | 28.14979 |
| F (excl.)† | 34.83 | 20.50 | 28.64 | 16.48 | 24.33 | 19.80 |
| N | 7295 | 6383 | 5276 | 4243 | 3335 | 2419 |

* p<0.05, ** p<0.01, *** p<0.001
Robust standard errors in parentheses.
† F-test of excluded instrument (Emergency Zone).

There are several possibilities to address covariate imbalances in a fuzzy RD design. Combining ITT estimation with matching or the inclusion of covariates into the regression analysis are two potential solutions to deal with imbalances in pre-treatment covariates.[70] The results of the latter strategy are shown in tables 6.10 for the first stage (FS) and reduced form (RF) equations, and in table 6.11 for the second stage. Included are the variables measuring prior exposure to insurgent violence, prior insurgent presence, and distance to the nearest province capital, as well as border segment fixed effects.

[70] On IV estimation based on pre-instrument matching and randomization inference in a paired design, see Keele (2012). On the combination of sharp RD analysis with matching see Linden and Adams (2012), on matching in sharp geographic RDs, see Keele, Titiunik and Zubizarreta (2012).

Table 6.8: Reduced Form / ITT (OLS): Autodefensa Mobilization

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| Emergency Zone | 0.018*** | 0.018** | 0.021*** | 0.022** | 0.024** | 0.033** |
| | (0.005) | (0.006) | (0.006) | (0.007) | (0.009) | (0.011) |
| Distance | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| EZ x Distance | -0.000** | -0.000* | -0.000** | -0.000** | -0.000** | -0.000*** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Constant | 0.003 | 0.003 | 0.004 | 0.005 | 0.006 | 0.008 |
| | (0.002) | (0.002) | (0.002) | (0.003) | (0.004) | (0.005) |
| Bandwidth | 75km | 65km | 55km | 45km | 35km | 25km |
| Rsquared | 0.007 | 0.006 | 0.009 | 0.009 | 0.011 | 0.016 |
| N | 7295 | 6383 | 5276 | 4243 | 3335 | 2419 |

* p<0.05, ** p<0.01, *** p<0.001
Robust standard errors in parentheses.

Another and more conservative approach is to rely again on the intuitively appealing and idea of intention-to-treat analysis, and to restrict the matching approach to the reduced form analysis. The nearest neighbor estimator developed by Abadie and Imbens (2002) and Abadie, Drukker, Herr and Imbens (2004) is particularly useful in this context. It allows not only for bias-adjustment, but also to specify the number of matches and variance estimation that is robust to heteroskedasticity.[71]

Table 6.12 shows the sample average treatment effect on the 'treated' based on this matching approach, whereby 'treatment' here refers to the exposure to generalized state repression in the form of military rule and the suspension of various civil rights, though not necessarily direct exposure to repression or state violence. Again, we can see a positive impact of state repression on counterinsurgent collective action.

The results thus consistently suggest a positive effect of exposure to state violence on counterinsurgent collective action in Peruvian villages and towns.

Further extensions of this analysis could include additional robustness checks, such as a repetition of the analysis at several placebo cut-offs, the use of alternative distance measures that take into account differences in land cover and slope, and a closer investigation of potential spillover dynamics. The estimation of spillover effects, while interesting in most social contexts, is a difficult task even in randomized experiments (Gerber and

[71] On the problems of using bootstrapping for variance estimation in the case of matching estimators see Abadie and Imbens (2008).

Table 6.9: IV Results (2SLS): Autodefensa Mobilization

| | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| State Violence | 0.289*** | 0.327*** | 0.345** | 0.385*** | 0.308*** | 0.339*** | 0.362** | 0.372*** | 0.294** | 0.301*** | 0.344** | 0.387** |
| | (0.081) | (0.089) | (0.111) | (0.116) | (0.093) | (0.088) | (0.127) | (0.111) | (0.105) | (0.090) | (0.119) | (0.121) |
| Distance | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | 0.000 | -0.000 | 0.000 | -0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| EZ x Distance | -0.000** | -0.000** | -0.000* | -0.000** | -0.000** | -0.000* | -0.000* | -0.000* | -0.000 | -0.000 | -0.000 | -0.000* |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Constant | -0.002 | -0.004 | -0.003 | -0.006 | -0.002 | -0.004 | -0.003 | -0.004 | -0.002 | -0.001 | -0.002 | 0.002 |
| | (0.002) | (0.005) | (0.003) | (0.007) | (0.003) | (0.006) | (0.005) | (0.007) | (0.005) | (0.006) | (0.007) | (0.006) |
| N | 7295 | 7295 | 6383 | 6383 | 5276 | 5276 | 4243 | 4243 | 3335 | 3335 | 2419 | 2419 |
| Bandwidth | 75km | 75km | 65km | 65km | 55km | 55km | 45km | 45km | 35km | 35km | 25km | 25km |
| Fixed Effects | No | Yes | No | Yes | No | Yes | No | Yes | No | Yes | No | Yes |

* p<0.05, ** p<0.01, *** p<0.001
Robust standard errors in parentheses.
Exposure to State violence instrumented by Emergency Zone

Table 6.10: First Stage and Reduced Form Results (incl. Covariates and Fixed Effects)

| | FS | RF | FS | RF | FS | RF | FS | RF | FS | RF | FS | RF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Emergency Zone | 0.040*** | 0.013*** | 0.035*** | 0.014*** | 0.049*** | 0.016*** | 0.051*** | 0.017*** | 0.062*** | 0.016** | 0.064*** | 0.020* |
| | (0.009) | (0.004) | (0.010) | (0.004) | (0.011) | (0.004) | (0.012) | (0.005) | (0.013) | (0.006) | (0.015) | (0.008) |
| Prior Ins. Pres. | 0.053*** | 0.016*** | 0.057*** | 0.018*** | 0.035*** | 0.020*** | 0.030** | 0.023*** | 0.032* | 0.038*** | 0.002 | 0.044*** |
| | (0.008) | (0.003) | (0.009) | (0.004) | (0.010) | (0.004) | (0.012) | (0.005) | (0.014) | (0.007) | (0.019) | (0.010) |
| Dist. Prov. Cap. | -0.000 | 0.000 | -0.000 | 0.000 | -0.000 | 0.000 | -0.000* | 0.000 | -0.000 | 0.000 | -0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Prior Ins. Viol. | 0.428*** | 0.082*** | 0.432*** | 0.093*** | 0.447*** | 0.093*** | 0.435*** | 0.094*** | 0.508*** | 0.085*** | 0.465*** | 0.078*** |
| | (0.019) | (0.007) | (0.020) | (0.008) | (0.023) | (0.010) | (0.026) | (0.011) | (0.028) | (0.014) | (0.032) | (0.016) |
| Distance | 0.000 | -0.000 | 0.000 | -0.000 | 0.000 | 0.000 | -0.000 | 0.000 | -0.000 | -0.000 | -0.000 | -0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| EZ x Distance | -0.000* | -0.000*** | -0.000 | -0.000*** | -0.000** | -0.000*** | -0.000* | -0.000*** | -0.000* | -0.000* | 0.000 | -0.000* |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Constant | 0.027** | 0.002 | 0.030** | 0.002 | 0.031** | 0.004 | 0.042*** | 0.004 | 0.029* | 0.002 | 0.024 | -0.000 |
| | (0.009) | (0.003) | (0.009) | (0.004) | (0.010) | (0.004) | (0.011) | (0.005) | (0.012) | (0.006) | (0.015) | (0.008) |
| N | 7295 | 7295 | 6383 | 6383 | 5276 | 5276 | 4243 | 4243 | 3335 | 3335 | 2419 | 2419 |
| Bandwidth | 75km | 75km | 65km | 65km | 55km | 55km | 45km | 45km | 35km | 35km | 25km | 25km |
| Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

* p<0.05, ** p<0.01, *** p<0.001

FS: First stage, direct exposure to state violence as dependent variable

RF: Reduced form, autodefensa mobilization as dependent variable

Table 6.11: IV Results (2SLS): Autodefensa Mobilization

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| State Violence | 0.336** | 0.397** | 0.332** | 0.340** | 0.268* | 0.304* |
| | (0.112) | (0.149) | (0.105) | (0.116) | (0.105) | (0.127) |
| Prior Insurgent Presence | -0.002 | -0.004 | 0.009 | 0.013 | 0.029*** | 0.043*** |
| | (0.007) | (0.010) | (0.006) | (0.007) | (0.008) | (0.010) |
| Distance to Province Capital | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Prior Insurgent Violence | -0.062 | -0.079 | -0.055 | -0.054 | -0.051 | -0.063 |
| | (0.049) | (0.065) | (0.049) | (0.053) | (0.056) | (0.062) |
| Distance | -0.000 | -0.000 | -0.000 | 0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| EZ x Distance | -0.000* | -0.000 | -0.000 | -0.000 | -0.000 | -0.000* |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Constant | -0.007 | -0.010 | -0.007 | -0.010 | -0.006 | -0.007 |
| | (0.006) | (0.008) | (0.007) | (0.009) | (0.008) | (0.010) |
| N | 7295 | 6383 | 5276 | 4243 | 3335 | 2419 |
| Bandwidth | 75km | 65km | 55km | 45km | 35km | 25km |
| Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |

* p<0.05, ** p<0.01, *** p<0.001
Robust standard errors in parentheses.
Exposure to State Violence instrumented by Emergency Zone

Table 6.12: Nearest Neighbor RD Estimates

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| ATT | 0.0103*** | 0.0112*** | 0.0112*** | 0.0124*** | 0.0141*** | 0.0161*** |
| Std.Err. | (0.0018) | (0.0020) | (0.0022) | (0.0026) | (0.0033) | (0.0045) |
| z | 5.76 | 5.57 | 5.07 | 4.71 | 4.31 | 3.60 |
| N total | 7295 | 6383 | 5376 | 4243 | 3335 | 2419 |
| Bandwidth | 75km | 65km | 55km | 45km | 35km | 25km |

* p<0.05, ** p<0.01, *** p<0.001. Matching variables: Prior Insurgent Presence, Distance to Province Capital, Prior Insurgent Violence, Distance to Emergency Zone Border. Bias-corrected NN matching estimator with standard errors allowing for heteroskedasticity. 4 matches for estimation of conditional mean and variance functions.

Green, 2012, 253ff.). Ideally, one could explicitly model the type, direction, and magnitude of spillover effects between units. However, it is far from straightforward how spatial interdependencies should be modeled in the Peruvian case: Historical evidence suggests that neighboring villages sometimes followed opposite paths during the war, partly due to historically rooted feuds between them, often linked to land issues (e.g., La Serna, 2012). In other cases – such as the civil defense forces in the Apurímac river valley (Fumerton, 2002) – counterinsurgent mobilization has indeed exhibited spatial diffusion processes, although generally at later stages than the period of interest in this study. The assumption seems plausible that none of these relationships between neighboring villages significantly outperformed the other on average, although this could be explored in future research. Moreover, the conservative ITT estimates are informative, substantively interesting, and robust even in the face of diffusion and non-compliance.[72]

To sum up, the results strongly and consistently support my argument in suggesting a positive effect of exposure to state violence on subsequent counterinsurgent mobilization in Peruvian villages and towns. While the effect size varies depending on the estimated quantity of interest (intention-to-treat effect, average treatment effect on the treated, and local average treatment effect on 'compliers'), the result is robust to two distinct identification strategies and a series of alternative specifications.

[72]Another question that could be further explored in future research is the role of top-down mobilization. While during the period of interest ('post-treatment') top-down mobilization was largely absent in the Peruvian case, the question to what extent prior top-down mobilization could help to account for bottom-up mobilization in the post-treatment period is certainly interesting. The historical evidence suggests that most *rondas* imposed by the armed forces during the counterinsurgency campaign 1983-85 were of short durability, which contrasts with studies in other contexts where top-down mobilization had long-term effects (Bateson, 2012*b*), and which does not preclude that top-down mobilization could nevertheless have had an impact on the propensity of communities to organize themselves autonomously at later stages. In a preliminary analysis, I found no effect of top-down mobilization (operationalized as joint operations of *rondas* and members of the armed forces) during the treatment period on counterinsurgent mobilization in the post-treatment period (Schubiger, 2012). Compared to cases like the civil war in Guatemala, in Peru top-down mobilization played a much weaker role; after an initial phase where the armed forces organized peasant patrols, the communities were largely left to their own devices (García-Godos, 2006, 274). Only after the *rondas* had demonstrated their effectiveness, strong alliances emerged between community-based *rondas* and the armed forces, which was not before the late 1980s and early 1990s (e.g., Fumerton, 2002; García-Godos, 2006), and hence beyond the period of interest of this study. Like in Guatemala, however, military attempts to impose peasant patrols occurred during the same period as indiscriminate state violence, and more research is needed to assess the joint and separate effects of state violence and the state-sanctioned imposition of civil patrols on bottom-up mobilization at later stages.

## 6.6 Conclusion

In this chapter I have proposed a distinction between bottom-up and top-down processes of conterinsurgent mobilization, none of which implies any form of private loyalty or allegiance to the state. Based on a matched difference-in-differences and a spatial regression discontinuity approach to account for observed and unobserved heterogeneity between spared and targeted communities in Peru, I find that exposure to state violence significantly increased the probability of communities autonomously rising up against the insurgents. This is consistent with my theoretical argument, which holds that indiscriminate state violence in the form of collective and direct targeting promotes community-based counterinsurgent mobilization as a form of militarized local governance in irregular war. While the effect size varies according to the quantity of interest, it remains positive and statistically significant across a series of specifications and empirical strategies. To my knowledge, this is the first study to systematically identify the causal effect of state violence on counterinsurgent collective action.

In terms of external validity, it is worth noting that while the Peruvian civil war shares many similarities with other 'robust insurgencies' (Kalyvas and Balcells, 2010), Sendero Luminoso was much more violent towards the civilian population than many otherwise comparable revolutionary movements. Moreover, once a community had publicly defected to the state, whether voluntarily or coerced, there was rarely a viable way back, as whole communities fell victim to the insurgents' retaliatory attacks. It is left to future research to empirically assess the suggested relationship between state repression and counterinsurgent resistance outside the Peruvian context.

While my results resonate with the proposition that indiscriminate state violence will promote civilian collaboration if insurgents fail to protect them (Kalyvas 2006, 167ff.), and while they are consistent with recent findings on the political activation of individuals and communities through victimization in the context of violent conflict or crime (Blattman, 2009; Bellows and Miguel, 2009; Gilligan, Pasquale and Samii, 2011; Voors et al., 2012; Bateson, 2012*a*), they do not imply that indiscriminate state violence is an 'effective tool' of counterinsurgency, not even if one would be willing to sidestep the enor-

mous human costs and ethical implications of such strategies. First, militia organizations are often difficult to control and may develop their own agendas, and the wartime militarization of communities can also have unforeseen consequences once armed conflicts end (Wood, 2008; Nussio and Howe, 2013). Thus, although civil defense forces might help to suppress insurgent activity in the short term (Lyall, 2009), the militarization of local governance is a type of institutional change with often lasting and unpredictable consequences (Wood, 2008; Bateson, 2012*b*; Theidon, 2013).[73]

Second, my findings are well compatible with existing evidence of a positive impact of indiscriminate state violence on the mobilization capacity of rebel groups, be it inside or outside the Peruvian context. Previous studies on violence and mobilization in civil wars have tended to overlook that state violence may incite pro- and counterinsurgent collective action simultaneously. Indeed, these processes can – and often do – occur in parallel in the wake of state violence, and they should accordingly be conceptualized as complementary rather than mutually exclusive dynamics.

My findings also point to several questions that have received little attention in previous research: When is local social cohesion and are the capacities for particular types of collective action strengthened or undermined through civil war violence, and what drives heterogeneity in the effects of state violence across villages and towns?[74] How do wartime processes of polarization and institutional transformation affect postwar patterns of local governance and insurgent reintegration, and how are they related to the risk of renewed political violence? These are questions that deserve to be further explored, both theoretically and empirically.

By systematically illuminating the relationship between state violence and counterinsurgent mobilization, my study provides novel insights into the impact of indiscriminate state violence on subsequent conflict dynamics. In particular, it demonstrates that state

[73]Most accounts of the Peruvian civil war converge on the idea that the civil defense forces in Peru contributed significantly to the success of the Peruvian military against the insurgents. However, as outlined above this development refers to later stages of the war, after the state had shifted from indiscriminate to selective violence and the insurgents had become progressively more abusive over time. On the social legacies of the Peruvian civil patrols, see for instance Theidon (2013).

[74]On diverging findings regarding the effect of civil war violence on social cohesion, see for instance Fumerton (2001) and Gilligan, Pasquale and Samii (2011) on one side and Weidmann and Zürcher (2013) on the other.

violence can indeed have a positive effect on counterinsurgent mobilization at the community level, thereby also contributing to the growing body of research on the consequences of wartime violence for local collective action and institutional change.

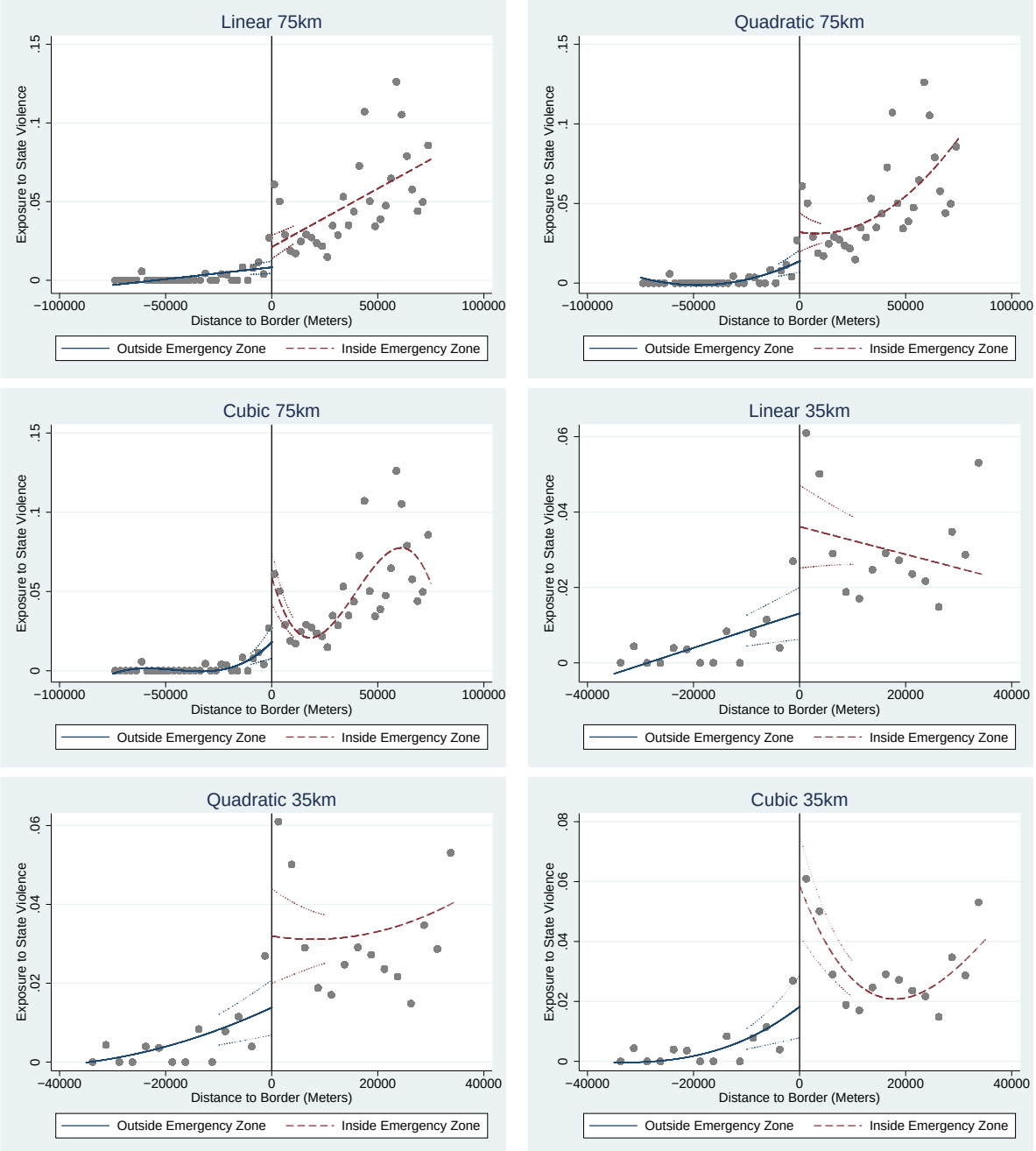


Figure 6.4: State Violence

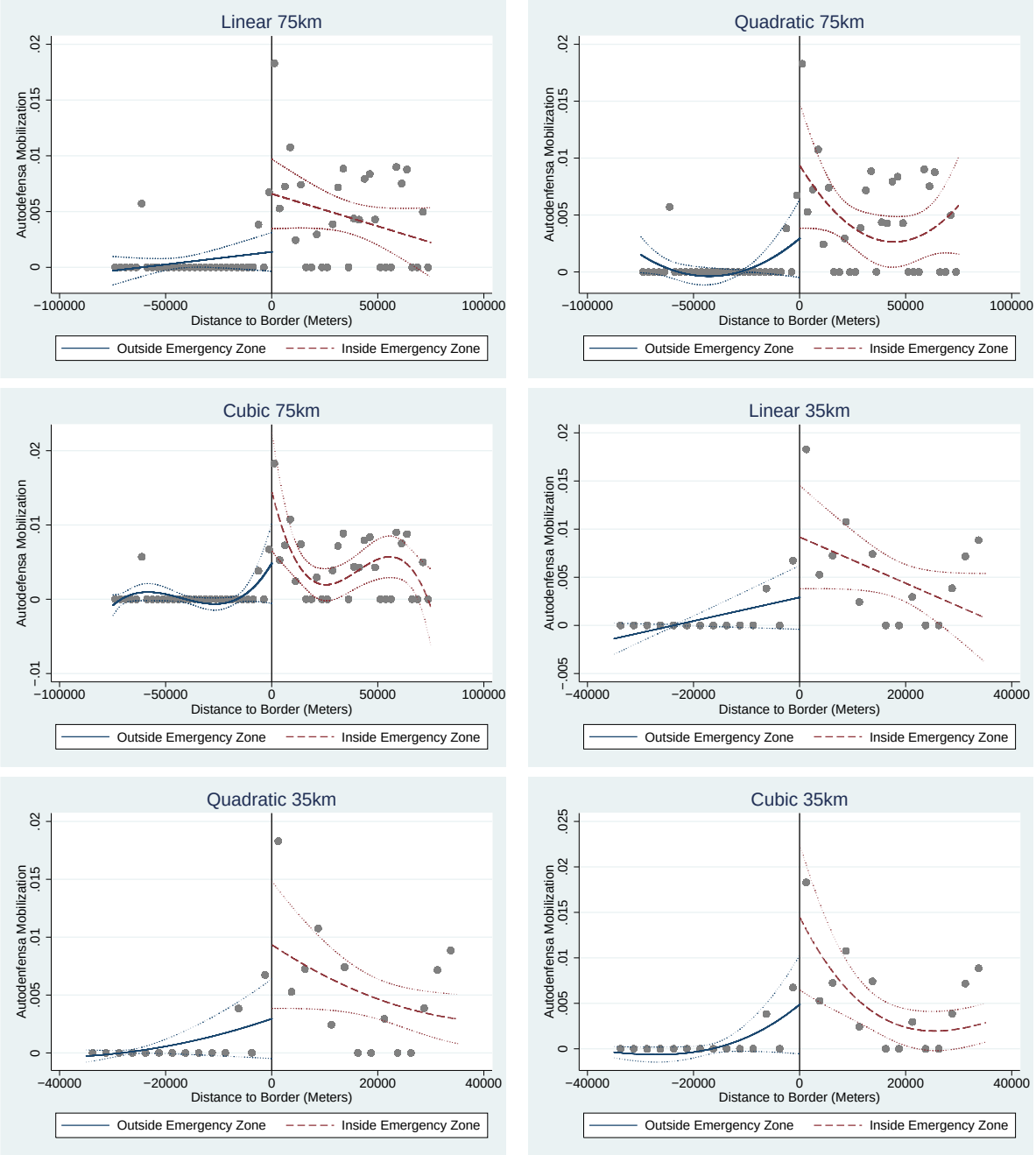


Figure 6.5: Autodefensa Mobilization

# Supplementary Material:

# Counterinsurgent Collective Action

Table 6.13: Three Periods of Political Violence

| Phase | | Years | Period in Research Design |
|---|---|---|---|
| I | Insurgency Onset | 1980, 1981, 1982 | Pre-treatment Period |
| II | Militarization | 1983, 1984, 1985 | Treatment Period |
| III | Reorientation | 1986, 1987, 1988 | Post-treatment Period |

Table 6.14: Blocks of Estimated Propensity Score

| Inferior bound | Control | Treated | N |
|---|---|---|---|
| .0063052 | 8,112 | 58 | 8,170 |
| .05 | 971 | 106 | 1,077 |
| .1 | 2,266 | 272 | 2,538 |
| .15 | 13 | 6 | 19 |
| .2 | 1 | 0 | 3 |
| .6 | 59 | 94 | 124 |
| Total | 11,422 | 536 | 11,958 |

Table 6.15: Summary statistics DiD

| **All Units** | | | | |
|---|---|---|---|---|
| **Variable** | **Mean** | **Std. Dev.** | **Min.** | **Max.** |
| Autodefensa Mobilization | 0.004 | 0.061 | 0 | 1 |
| Diff. in Autodefensa Mobilization | 0.003 | 0.063 | -1 | 1 |
| Prior Insurgent Presence | 0.141 | 0.348 | 0 | 1 |
| Initial Military Rule | 0.3 | 0.458 | 0 | 1 |
| Prior Insurgent Violence | 0.014 | 0.119 | 0 | 1 |
| Distance to Province Capital | 22675.503 | 12634.127 | 0 | 64692.617 |
| N | | 11958 | | |
| **Treated Units** | | | | |
| **Variable** | **Mean** | **Std. Dev.** | **Min.** | **Max.** |
| Autodefensa Mobilization | .0522388 | .2227161 | 0 | 1 |
| Diff. in Autodefensa Mobilization | .0485075 | .2317701 | -1 | 1 |
| Prior Insurgent Presence | .358209 | .4799219 | 0 | 1 |
| Initial Military Rule | .7817164 | .4134668 | 0 | 1 |
| Prior Insurgent Violence | .1865672 | .3899276 | 0 | 1 |
| Distance to Province Capital | 20553.81 | 13541.38 | 0 | 64450.63 |
| N | | 536 | | |
| **Control Units** | | | | |
| **Variable** | **Mean** | **Std. Dev.** | **Min.** | **Max.** |
| Autodefensa Mobilization | .0014008 | .0374027 | 0 | 1 |
| Diff. in Autodefensa Mobilization | .0012257 | .0396805 | -1 | 1 |
| Prior Insurgent Presence | .1309753 | .3373881 | 0 | 1 |
| Initial Military Rule | .2770968 | .4475843 | 0 | 1 |
| Prior Insurgent Violence | .0063912 | .0796924 | 0 | 1 |
| Distance to Province Capital | 22775.07 | 12581.79 | 0 | 64692.62 |
| N | | 11422 | | |

All *centros poblados* in region of common support as defined by the propensity score.

Table 6.16: DiD Placebo Tests: Pretreatment Outcomes

| | **PT Period I** | **PT Period I** | **PT Period II** | **PT Period II** | **PT Period III** | **PT Period III** |
|---|---|---|---|---|---|---|
| State Violence | 0.000 | 0.000 | 0.004 | 0.002 | 0.004 | 0.002 |
| | (0.000) | (0.000) | (0.003) | (0.003) | (0.003) | (0.003) |
| Prior Insurgent Presence | | -0.001 | | 0.001 | | 0.000 |
| | | (0.001) | | (0.001) | | (0.001) |
| Initial Military Rule | | -0.000 | | 0.000 | | -0.000 |
| | | (0.000) | | (0.000) | | (0.000) |
| Prior Insurgent Violence | | 0.000 | | 0.010 | | 0.011 |
| | | (0.000) | | (0.008) | | (0.008) |
| Distance to Province Capital | | 0.000 | | 0.000 | | 0.000 |
| | | (0.000) | | (0.000) | | (0.000) |
| Constant | -0.000 | -0.000 | 0.000 | -0.000 | 0.000 | -0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Rsquared | 0.000 | 0.001 | 0.002 | 0.008 | 0.002 | 0.006 |
| Clusters | 285 | 285 | 285 | 285 | 285 | 285 |
| N | 11958 | 11958 | 11958 | 11958 | 11958 | 11958 |

Pre-Treatment Period 1: Dependent Variable is pre-treatment difference in *autodefensa* mobilization (1981-1980).
Pre-Treatment Period 3: Dependent Variable is pre-treatment difference in *autodefensa* mobilization (1982-1981).
Pre-Treatment Period 3: Dependent Variable is pre-treatment difference in *autodefensa* mobilization (1982-1980).

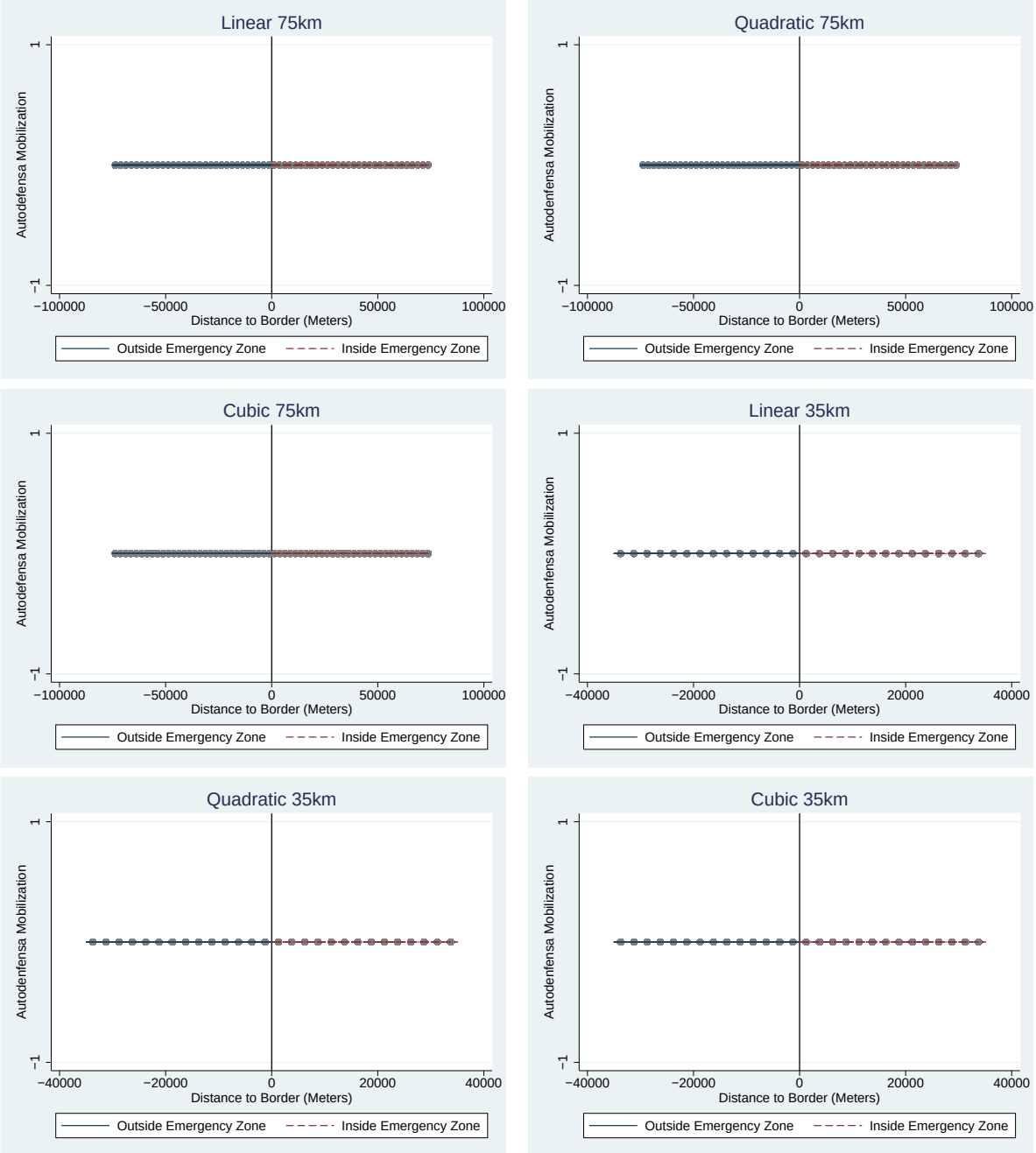


Figure 6.6: Pre-Treatment Autodefensa Mobilization

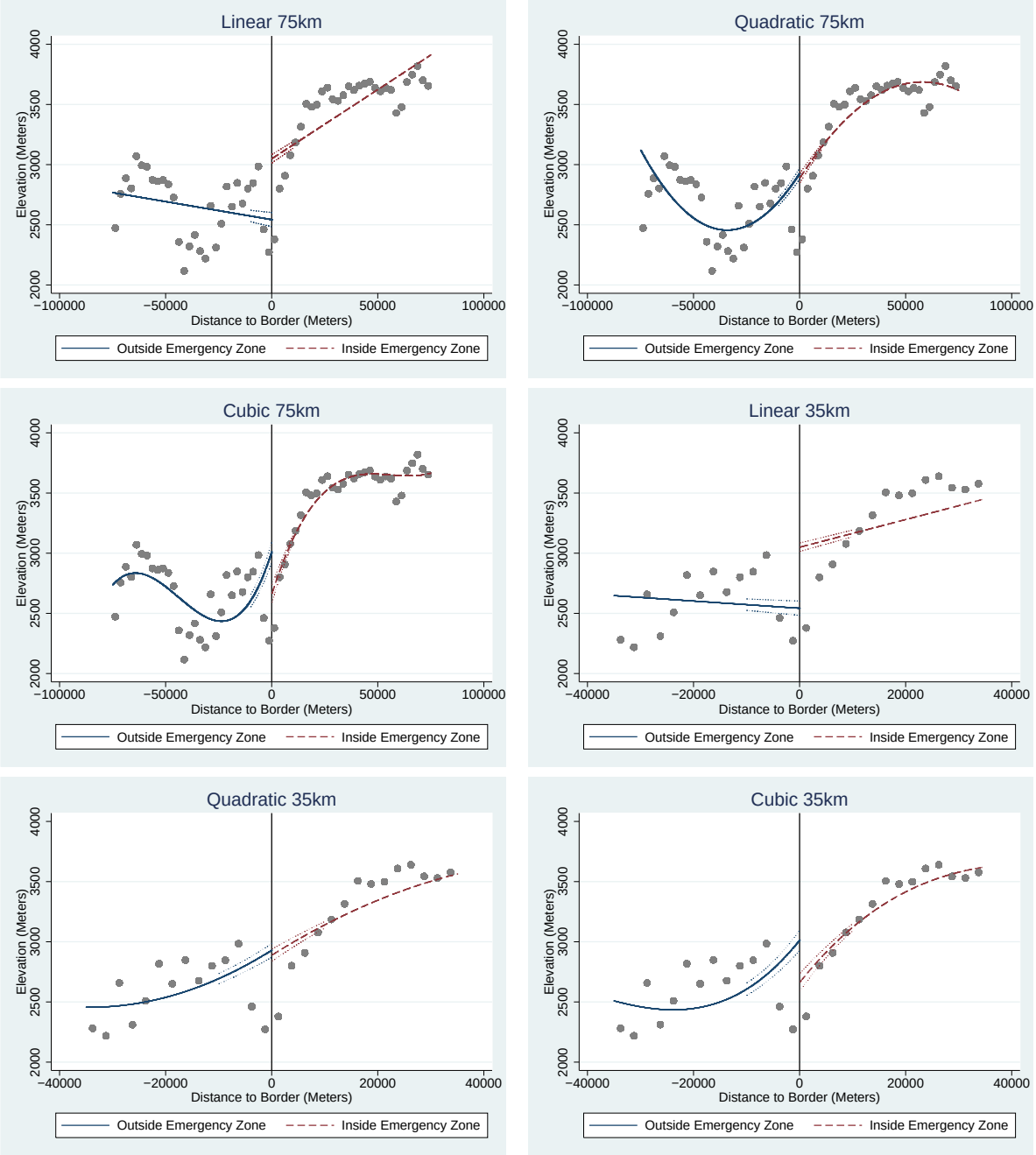


Figure 6.7: Elevation

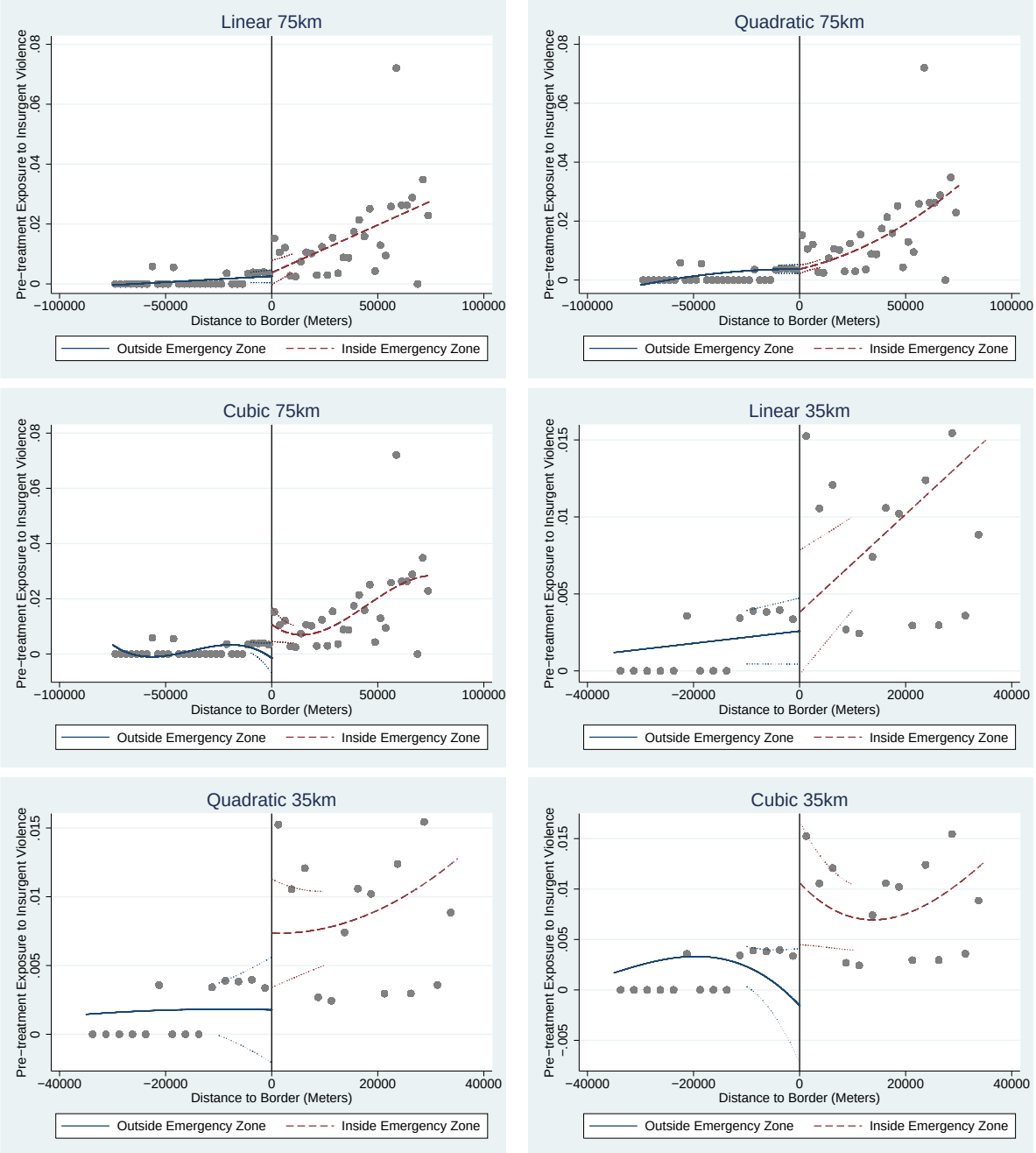


Figure 6.8: Prior Insurgent Violence

# Part IV

# State Violence and Armed Conflicts

# Chapter 7

# State Violence and Conflict Duration and Outcome

## 7.1 Introduction

Some civil wars last for decades, such as the conflict between the government of the Philippines and the *Partido Komunista ng Pilipinas* (CPP) or the one between the government of Colombia and the *Fuerzas Armadas Revolucionarias* (FARC).[1] Other armed conflicts are resolved quickly, such as the confrontation between the government of Lesotho and defective military factions in 1998[2] – and yet others temporarily come to a pause, only to flare up again at later stages. The conflict between the *Ejército Popular de Liberación* (EPL) and the government of Colombia is just one example where the fighting went 'on' and 'off', and where insurgent factions remain mobilized after conflict activity has ceased.[3]

[1]Uppsala Conflict Data Program (Date of retrieval: June 25, 2013) UCDP Conflict Encyclopedia: `http://www.ucdp.uu.se/gpdatabase/gpcountry.php?id=35&regionSelect=5-Southern_Americas`, Uppsala University

[2]Uppsala Conflict Data Program (Date of retrieval: June 25, 2013) UCDP Conflict Encyclopedia: `http://www.ucdp.uu.se/gpdatabase/gpcountry.php?id=93&regionSelect=2-Southern_Africa`, Uppsala University

[3]The conflict between the Colombian government and the EPL is coded active by UCDP in 1984, 1987, 1988, 1989, and 1990. The majority of EPL members demobilized in 1991. However, conflict between the government and a dissident EPL faction re-erupted in 2004; this faction is still active, though the conflict has not reached the 25 battle deaths threshold since 2004. Uppsala Conflict Data Program (Date of retrieval: June 25, 2013) UCDP Conflict Encyclopedia: `http://www.ucdp.uu.se/gpdatabase/gpcountry.php?id=35&regionSelect=5-Southern_Americas`, Upp-

Civil wars also differ in *how* they end, and the type of conflict termination has implications for the risk of conflict recurrence. Previous research suggests that conflicts that end in decisive victories by either side are less likely to break out again (Toft, 2010), while conflicts that peter out without victories or agreements seem to be particularly vulnerable to recurrence (Human Security Report Project, 2012).

The main rationales behind campaigns of indiscriminate state violence are to crash insurgencies, to inhibit rebel mobilization, and to accelerate conflict termination. And yet, as outlined in chapter 2, scholars strongly disagree on the 'effectiveness' of indiscriminate state violence. While some scholars argue that indiscriminate state repression drives rebel recruitment and noncombatant support to the extent of significantly prolonging insurgent survival (e.g., Goodwin, 2001; Peceny and Stanley, 2010), other authors have highlighted the potential 'effectiveness' of state violence in suppressing insurgent capacities, including their capacity to mobilize followers and to engage in armed competition against the state (e.g., Downes, 2007*a*; Lyall, 2009). *What effect does indiscriminate state violence have on conflict duration and termination?*

In this chapter, I argue that indiscriminate state violence tends to suppress armed competition in the short term, but that it promotes insurgent survival and conflict recurrence in the longer run.[4] Theoretically, I focus on three mechanisms at different levels of analysis through which indiscriminate state violence affects subsequent dynamics of armed competition and processes of conflict termination. Specifically, I focus on the consequences of state violence for i) insurgent recruitment and mobilization, ii) insurgent cohesion and fragmentation, and iii) local polarization and militarization, including counterinsurgent collective action. While two of these mechanisms are theorized and examined in detail in chapter 5 (insurgent fragmentation) and chapter 6 (counterinsurgent collective action), in this chapter I focus on the aggregate effect of state violence

sala University; START database of the National Consortium for the Study of Terrorism and Responses to Terrorism, `http://www.start.umd.edu/start/data_collections/tops/terrorist_organization_profile.asp?id=86`, (Date of retrieval: June 25, 2013).

[4]A first draft of this chapter was presented at the ECPR conference 2009 in Potsdam, Germany, and a related draft at the ISA convention 2009 in New York, USA. Drafts were also presented in courses taken at the University of Konstanz and the University of Oslo. I thank Luis de la Calle, Scott Gates, Erin Jenne, Susumu Shikano, Havard Strand, Kai Thaler, and Julian Wucherpfennig for very helpful comments.

on conflict duration and outcome, thereby integrating mechanisms at the level of armed groups and civilian communities into a theory of conflict termination. In explicitly connecting micro- and meso-level mechanisms to their macro-level implications, I follow scholars such as Cederman, Gleditsch and Weidmann (2011) and Kalyvas and Balcells (2010), who have started to bridge the current divide in sub- and crossnational research on political violence.

Empirically, I will show that – once we control for other determinants of civil war duration and outcome – indiscriminate state violence will increase the probability of conflict termination in the short term, but that this effect is driven, first, by conflict termination through periods of no or low fighting activity – a type of termination that is particularly conducive to conflict recurrence –, and second, conflict termination trough rebel victories.

Having discussed the existing literature on conflict duration and outcome in general and the role of state violence in particular in chapter 2, I proceed in this chapter by developing a theoretical framework that integrates multiple levels of analysis to explain the impact of state violence on conflict duration and termination. I then introduce the empirical approach of this chapter and discuss the selection and measurement of all variables in detail. After the presentation of the results, I conclude by addressing the implications of my findings as well as some remaining issues.

## 7.2 A Theory of State Violence and Conflict Termination

In this section I develop a theoretical framework that incorporates three pathways through which state violence influences subsequent conflict processes, namely insurgent mobilization, insurgent fragmentation, and local polarization and militarization.

While the relationship between state violence and insurgent mobilization has received extensive attention in the literature on political violence (e.g., Goodwin, 2001; Wood, 2003*a*; Viterna, 2006; Nillesen and Verwimp, 2009; Kocher, Pepinsky and Kalyvas, 2011),

others pathways through which state violence contributes to subsequent dynamics of violence and mobilization, and hence, conflict continuation and termination, have typically been neglected and remain theoretically underdeveloped. In addition to insurgent mobilization, I emphasize two pathways that have been theorized and tested in detail in chapters 7 and 6: First, at the level of insurgent organizations, I focus on the impact of state violence on insurgent fragmentation. Second, at the level of local communities, I explore the consequences of state violence for local polarization and institutional change in general and counterinsurgent collective action in particular.

Each of these pathways is driven by a number of causal mechanisms, which I discuss in detail below. I will argue that the interaction of these processes will tend to suppress armed competition in the short term, but complicate both decisive government victories as well as negotiated agreements, and increase the risk of renewed armed conflict in the longer run.

### 7.2.1 Insurgent Mobilization

Perhaps the most visible – and most documented – consequence of indiscriminate state violence on subsequent conflict dynamics lies in its effect on insurgent recruitment and support. At least three distinct mechanisms underlie this pathway:

First, indiscriminate state violence increases the incentives for joining armed groups based on *security-related considerations*, as under conditions of collective targeting, participation in armed groups is often safer than remaining on the sidelines as a noncombatant (Mason and Krane, 1989; Mason, 2004; Kalyvas and Kocher, 2007). Second, indiscriminate violence is likely to engender and increase *grievances* among targeted groups, the rectification of which has been shown to be a key driver of rebel recruitment (e.g., Goodwin, 2001; Wucherpfennig et al., 2012; Cederman, Gleditsch and Buhaug, 2012). Third, perceived injustice also creates and reinforces *in-process benefits* for insurgent recruits and supporters, such as participation-related emotional gratification, even in the absence of security-related incentives or prospects of future success (Wood, 2001; Wood, 2003*a*). These three mechanisms are discussed in detail below.

### Protection and Relative Security

Authors of different theoretical and methodological traditions have argued that as state violence becomes increasingly brutal and arbitrary, it will foster rebel support and recruitment by driving civilians into insurgent ranks in search of protection (e.g., Goodwin, 2001; Mason and Krane, 1989; Mason, 2004; Kalyvas and Kocher, 2007).[5]

Protection from state violence thus serves as a powerful selective incentive for individuals to join insurgencies, and therefore, is a potential solution to the insurgents' collective action problem, i.e., the problem of how to motivate followers to take the risks of active participation in war, given that the benefits of a successful revolution will be accessible to participants and nonparticipant's alike (Olson, 1971; Popkin, 1979; Lichbach, 1995; Mason, 2004). Indeed, as Kalyvas and Kocher (2007) have shown, under conditions of indiscriminate state violence, joining insurgent groups may actually be safer than nonparticipation, turning the 'rebel's dilemma' (Lichbach, 1995) upside down.[6]

> "If an individual's chances of being victimized depend on a profile rather than on his or her behavior, then shunning participation in the rebellion and free riding may actually prove deadlier than joining it, since the rebels may be able to offer a degree of protection." (Kalyvas and Kocher, 2007, 186)

Provided that insurgent groups can offer protection from state violence, they might deliberately choose to capitalize on the perpetration of indiscriminate state violence, for instance through the provocation of state violence or by selectively protecting some individuals and groups but not others (Kalyvas, 2006). The benefits that insurgents can reap from indiscriminate state violence are likely to be particularly strong if – in contrast to state forces – insurgents are capable of choosing their targets carefully and selectively (Kalyvas and Kocher, 2007, 190).

That the perceived relative security is a powerful incentive to join insurgencies has

[5]For a formal model see for instance Mason (1996), for an agent based modeling approach, see Findley and Young (2007).

[6]Kalyvas and Kocher (2007, 189) argue that "[w]hen the state relies on indiscriminate violence, insurgent organizations may respond by providing protection to the targeted civilian population. Survival-maximizing civilians will then be more likely to join such an organization than they would otherwise have been". It is important to keep in mind though that civilian communities can rarely be protected by insurgents, and that the security benefits of joining rebel groups would be considerable smaller if civilians could be protected without joining armed groups in the first place.

been highlighted in both macro-quantitative (e.g., Regan and Norton, 2005) and microlevel studies of individual participation in armed groups (Humphreys and Weinstein, 2008), as well and numerous qualitative studies. As for instance Theidon (2013, 209) writes on the effect of the state's counterinsurgency campaign in Peru:

> "Young men ran into the hills to escape them [the soldiers] and, once there, found themselves considered suspect by the guerrillas as well. As several now grown man recalled, '*we decided it was better to join them so that someone would protect us*'." (Theidon, 2013, 209)

Insurgents are thus likely to benefit from indiscriminate state violence in the form of fresh recruits if they manage to engender and maintain the perception that participation reduces the risk of exposure to arbitrary state violence.

### Grievances and Radicalization

Protection, however, is not the only way through which insurgents my benefit from state violence. While the above-mentioned mechanism revolves around the perceived capacity of insurgents to protect their followers, grievance-based accounts of insurgent mobilization have stressed the effect of state repression – including violence – on the demand for revolutionary change, independently from the perceived relative security associated with joining or supporting rebel groups.

Indeed, while protection-related arguments go a long way in explaining the dynamics of violence and insurgent recruitment in civil war, they are not sufficient to explain why insurgents often experience massive surges of both new recruits as well as active civilian collaboration and support in the wake of indiscriminate repression – *despite* the fact that they are obviously not capable of providing protection.[7] Indiscriminate state violence, just like – or even more so than – political exclusion and ethnic discrimination, is rarely if

[7] As an ex-IRA member put it with regards to the capability of IRA-members to protect catholics from loyalist violence in the mid 1970s: "As a functional, practical strategy did the IRA protect Catholics, did they succeed in protecting Catholics, from loyalist attack by its activities in 1974, '75, '76? I would say no. Did they make it worse for Catholics? I would say no. At least they were promoting themselves as somebody who would do something about it... The IRA, who were supported to be defenders, could never actually defend. There was no way to defend against these things. So the only way to appear to be defending, to appear to be active, was to take out other people" (Ex-IRA member, quoted in English, 2004, 173f.).

ever endured with indifference. It is instead very likely to not only dramatically increase existing grievances, but also to radicalize previously moderate people. As Goodwin (2001) puts it:

> "Like political exclusion, indiscriminate state violence also reinforces the plausibility and diffusion of specifically revolutionary ideologies – that is, ideologies that envisage a radical reorganization not only of the state, but of society as well. After all, a society in which aggrieved people are routinely denied an opportunity to redress their perceived injustices, and even murdered on the mere suspicion of political disloyalty, is unlikely to be viewed as requiring a few minor reforms." (Goodwin, 2001, 48)

With regards to the onset of the 'Troubles' in Northern Ireland, for example, Hughes (2011) argues that the British security forces in the period 1969-1972 adopted a repressive approach that was primarily targeted at catholic working-class communities and, through its violent and collective character, transformed a non-nationalist and non-violent protest movement "into a formidable nationalist cause championed by the Provisional Irish Republican Army, itself only founded in early 1970" (Hughes, 2011, 2). As Hughes writes, "[t]he reactive qualities in the emergence and relegitimization of the 'physical force' tradition in Irish nationalism (...) was not simply a product of internal war, but was also largely made in Britain – a product of British state violence" (Hughes, 2011, 21). Indeed, as a former IRA member put it, "the British Army, the British government, were our best recruiting agents" (quoted in English, 2004, 122).

Perceived injustice has long been argued to be one of the most relevant drivers of conflict onset (for recent contributions see Cederman, Weidmann, and Gleditsch, 2011 and Cederman, Gleditsch, and Buhaug, 2012). That grievances are powerful drivers not only of conflict onset, but also of conflict duration and outcome is supported by recent research on the consequences of ethnopolitical exclusion. Wucherpfennig et al. (2012) and Cederman, Gleditsch and Buhaug (2012, ch.8) focus on the relationship between exclusivist state policies and civil war duration and outcomes. They argue that ethnic exclusion will restrict the willingness of governments to accept settlements in civil wars, increase the capability of rebel organizations to recruit from aggrieved ethnic groups, and promote both within-group solidarity and individual cost-tolerance. They find that rebel

groups that fight on behalf of and recruit from excluded ethnic groups[8] are significantly related to longer conflicts, which is consistent with their argument.

In short, indiscriminate state violence tends to promote insurgent mobilizations because, as Cederman, Gleditsch and Weidmann (2011, 5)[9] put it,"the perception of injustice generates grievances that serve as a formidable tool of recruitment."

### Process-related Benefits

While protection-oriented and grievance-based approaches stress the tangible outcome-related benefits motivating support for and participation in insurgencies – such as physical protection or the rectification of grievances through revolutionary change –, process-oriented approaches focus on intrinsic motivations and emotional benefits that are related to the very acts of participation and support themselves (Wood, 2003). In contrast to security-oriented and grievance-centered accounts, this theoretical perspective holds that indiscriminate state violence can be a powerful mobilization facilitator *independently* of the capacities of insurgents to provide protection or the perceived probability that grievances will be successfully redressed in the future (Wood 2001, 2003). Based on in-depth field research in El Salvador, Wood (2001,2003) concludes that in the El Salvadoran civil war, indiscriminate state violence was one of the main drivers of insurgent collective action despite the considerable risks that various levels of participation and collaboration entailed.

> "As government violence deepened, some *campesinos* supported the armed insurgency. They did so as an act of defiance of long-resented authorities and a repudiation of perceived injustices (particularly the brutal and arbitrary violence by security forces). Participation per se expressed outrage and defiance; its force was not negated by the fact that victory was unlikely and in any case was not contingent on one's participation. Through rebelling, insurgent campesinos asserted (...) their dignity in the face of condescension, repression, and indifference" (Wood, 2003*a*, 18).

[8]By ethnic exclusion they refer specifically to the groups being discriminated against, having no access to state power, or merely enjoying some form of regional autonomy (Wucherpfennig et al., 2012, 97).

[9]Note that Cederman, Gleditsch and Weidmann (2011, 5) refer to state policies of exclusion and discrimination in general, not exclusively to state violence in particular.

Wood (2001, 2003) also distinguishes between distinct motivations over the course of the war in El Salvador. During the early stages, "to express rage at the arbitrary and brutal violence of authorities was perceived by some campesinos as a necessary expression of being human (...) Later in the war, participants in the mobilization experienced a deepening pride – and indeed, pleasure – in their exercise of agency in the realization of their interests" (Wood, 2001, 268). This perspective considerably advances the understanding of the effects of violence because, while basically being consistent with rational choice approaches insofar as it "emphasizes intentional action taken with the purpose of realizing one's interests or values as the key element of the microfoundations of collective action" (Wood, 2001, 268), it also departs from the consequentialist framework of standard rational choice approaches in its emphasis of intrinsic, emotional, norm-driven, and process-related reasons for acting, rather than outcome-oriented ones, and by emphasizing the endogenous nature of those motives (Wood, 2003*a*, 252ff.). Wartime collective action can thus be driven by other-regarding and process-oriented reasons for action that are endogenous to the dynamics of war and may change over time. This perspective complements classic grievance-based and security-oriented approaches, and it helps to explain insurgent participation and support where it is most puzzling, i.e., in a high-risk environment where the chances of protection or revolutionary change are slim.

In sum, at least three causal mechanism can be identified that link state violence to insurgent mobilization. It is important to note that these processes are not mutually exclusive; all or some of them can be at work simultaneously or sequentially, and they may or may not reinforce each other, depending on the context. They do, however, all point to the same conclusion – that indiscriminate state violence is very likely to promote insurgent recruitment and support.

### 7.2.2 Insurgent Cohesion and Fragmentation

While the relationship between state violence and insurgent mobilization has attracted much attention, a surprisingly neglected pathway through which state violence influences subsequent dynamics of conflict duration and termination lies in its effect on insurgent

internal control. Chapter 5 develops a theory on the relationship between state violence and insurgent fragmentation, defined as the process through which insurgent organizations split and decay into distinct organizations with their own composition, goal, and leadership. I argue that indiscriminate state violence will increase the probability of the concerted defection that underlies insurgent fragmentation through the interaction of several causal mechanisms that operate on different levels of analysis: Indiscriminate state violence will, first, lead to the multi-faceted and rapid growth of individual-level incentives to fight, second, reinforce ties between fellow fighters (primary cohesion), and third, impair the commitment of commanders and rank and file members to the organization as a whole (secondary cohesion).[10] I argue that strong ties among immediate group members and surges in fresh recruits will facilitate insurgent fragmentation when the commitment to and identification with the principles and the leadership of the overall organization are low.

At the individual level, indiscriminate state violence tends to increase the incentives to fight, thereby increasing the supply of fresh recruits, and to reinforce the commitment of combatants to sustain their armed struggle. The underlying mechanisms, as discussed above, are numerous: State violence increases the number of recruits who join armed groups in the search of protection (Mason and Krane, 1989; Goodwin, 2001; Kalyvas and Kocher, 2007) or motivated by moral outrage (Wood, 2003*a*). Perceived injustice attributed to the state is also likely to increase individual-level cost-tolerance (Wucherpfennig et al., 2012), thereby further reinforcing the commitment to fight. At the level of insurgent subgroups and fighting units, indiscriminate state violence will increase primary cohesion – the ties of combatants to their immediate peers. This will happen, first, through shared victimization experiences (Kenny, 2010).[11] Even in cases where state violence is more selective, or where it increases downstream territorial con-

[10]The distinction between primary and secondary cohesion stems from military sociology (Siebold, 2007, Siebold, 2011) and was to my knowledge first adopted to non-state armed groups by Wood (2009, 2012).

[11]Note that while Kenny (2010) argues that socialization experiences like shared sacrifices in general (regardless of their source) tend to strengthen overall organizational cohesion, my argument concentrates on the diverging effect of indiscriminate state violence on primary and secondary cohesion and the implications thereof for insurgent fragmentation; cf. chapter 5.

trol (Kocher, Pepinsky and Kalyvas, 2011), primary cohesion should increase in the wake of violent state repression.[12] Second, internal cohesion is strengthened through the increased mobility and social uprooting that often follow campaigns of indiscriminate state violence. Indeed, one of the main reasons for the relative safety of combatants compared to civilian communities in the face of indiscriminate state violence (Kalyvas and Kocher, 2007) is the formers' agility – their ability to dislocate quickly when necessary. The collective targeting of the insurgents' alleged civilian base is particularly likely to increase combatant mobility and to temporarily disrupt contact between insurgents and civilians, as insurgents will try to evade state violence and civilians may themselves choose to at least temporarily relocate (Steele, 2009) – or to organize their own protection (see next section and chapter 6).

At the same time, however, indiscriminate state violence is likely to weaken secondary cohesion through three mechanisms, discussed in detail in chapter 5. First, constant mobility, impaired sources of civilian support and information, and surges of incoming recruits will both increase the demand for and divert resources away from the institutions that forge and maintain high levels of secondary cohesion on a daily basis. Many scholars assume fixed combatant preferences at the individual level (e.g., Weinstein, 2007) and their heterogeneity across different ranks, and hence emphasize the need for insurgent leaders to engage in constant in-group policing (e.g., Richards, 2012) or to ensure a steady stream of selective benefits (e.g., Regan and Norton, 2005) to prevent insurgent defection. However, recent research suggests that insurgent institutions, particularly those aimed at political education and indoctrination, are often successful in transforming insurgent values, norms, and identities in accordince with the principles of the organization, and are thus powerful sources of internal cohesion and control (Gutiérrez Sanín, 2008; Wood, 2009; Hoover Green, 2011; Wood, 2012). While most armed groups invest to some

[12] As Kenny (2010,551) writes on the *Provisional Irish Republican Army*: "Socialization was enhanced throughout the 1980s primarily because of the shared sacrifice that members of the organization had made in living on the run, serving time in British jails, and dying in significant numbers. These were sacrifices that other Republicans did not have to make and they tended to enhance solidarity within the PIRA, while increasingly distancing it from the broader Republican movement" (Kenny, 2010, 551). Note that while Kenny refers to the armed organization as a whole, I believe the cohesion-strengthening effect of shared sacrifices to be particularly strong among immediate group members.

extent in the institutionalization of processes aimed to socialize and indoctrinate their members in accordance with the principles and goals of the leadership, the quality and intensity of these efforts varies widely. The Peruvian insurgent organization *Sendero Luminoso* (Shining Path) is an example of an armed group that placed highest value on the ideological education and indoctrination of its members and supporters. All members were required to read and write, to regularly attend lengthy meetings devoted to political education and self-criticism, and in order for comrades to move up the ranks, they needed to demonstrate ample knowledge of the political principles of the movement (Weinstein, 2007, 118f.). This heavy emphasis on ideological indoctrination, together with a highly charismatic leader Abimael Guzmán or Presidente Gonzalo, helped to turn a small leftist party of intellectuals in the highlands of Peru into one of the most powerful insurgent organizations of the 1980s.[13] Indiscriminate state violence will tend to undermine secondary cohesion by diverting resources away from and increasing the demand for (through the influx of new recruits) coherent and institutionalized frames of mobilization and indoctrination.

Second, indiscriminate state violence will tend to weaken secondary cohesion through the impairment of intra-organizational coordination. Clear lines of command across subgroups and the collective attendance of meetings by mid- and high-level commanders are more difficult to sustain when both armed groups and their alleged supporters are constantly under attack. During the El Salvadoran civil war, the insurgents of the *Frente Farabundo Martí para la Liberación Nacional* (FMLN) responded to indiscriminate state violence – including bombing campaigns that made it exceedingly difficult for insurgents to protect civilians – by sending civilians to refugee camps, and by breaking down its battalion-size forces to operate in units that sometimes were composed of no more than five combatants (Wood, 2003*a*, 134f.). While such adaptations do not necessarily lead to the breakdown of organizations as a whole, they certainly improve the challenges of maintaining high levels of secondary cohesion.[14]

[13]The close connection of the Senderista ideology to its leader – which finds its expression in the term 'Gonzalo thought' – eventually would contribute to the organization's demise: Once 'Presidente Gonzalo' was captured in 1992, the organization faltered quickly; see for instance Degregori (2012*a*).

[14]On the role of civilians in connecting insurgent networks, see Parkinson (2013).

Third, indiscriminate state violence tends to create, reveal, and reinforce heterogeneous preferences over the strategic direction of armed groups, likely playing off radical forces in the leadership against more moderate ones (e.g., Cederman, Gleditsch and Buhaug, 2012, 83). Defective elements within the higher ranks of rebel organizations might even be able to capitalize on indiscriminate state violence and to seize the opportunity to mobilize support for alternative postures and to launch a coordinated defection. The split of the *Irish Republican Army* (IRA) into the Provisional IRA and the Official IRA at the eve of the 1970s is just one case of insurgent fragmentation that was at least partly driven by internal disagreements about how to respond to indiscriminate state repression against alleged civilian supporters (Sanders, 2012).

In sum, I argue that a shared commitment to fight for a general common cause – such as revolutionary change or the removal of an occupying force – and strong ties to immediate group members are not sufficient to ensure organizational integrity. Cohesive organizations are not built on the mobilization of active support against a common enemy alone. Unless leaders manage to inspire their followers with the trust that theirs is the only true path to political change, and unless strong ties can be maintained that link individuals to the particular goals, principles, and leadership of the organization across all ranks ('secondary cohesion'), insurgent groups will likely be quite vulnerable to fragmentation. Therefore, I argue that – particularly if institutions that underpin secondary cohesion are weak –, prospective leaders of defective factions will conclude that peaks in fighting morale, primary cohesion, and incoming recruits in the wake of state violence present ideal opportunities to launch their 'own' struggle. Concerted defection is risky, and prospective leaders of nascent splinter groups will launch a collective desertion only once they are confident that their closest allies and their subordinates will stay loyal when the time is ripe, and that, once defected, they will be able to grow quickly in size.

In short, it is precisely the combination of 'oversupplies' in fresh recruits and strong cohesion at the group level with low levels of secondary cohesion that is most conducive to insurgent fragmentation. Indiscriminate state violence is thus likely to facilitate processes of insurgent fragmentation, a pathway that is theorized and examined in chapter 5.

### 7.2.3 Polarization and Militarization

> "[W]e learned to kill our brothers"
> members of armed peasant patrols
> in Peru (quoted in Theidon, 2006, 439).

Two additional and often intertwined processes linking state violence to subsequent patterns of violence and mobilization are local polarization and the militarization of institutions for local governance.[15] In essence, I argue that indiscriminate state violence will complicate processes of conflict termination through the intensification of polarization and militarization at the local level.

By polarization, I refer to processes through which ordinary citizens align their private and/or public loyalties with armed actors (Wood, 2008). By militarization of local governance, I refer to the "supplanting of local forms of governance with new forms that reflect the influence of armed actors" (Wood, 2008, 550). Processes of wartime polarization are not necessarily connected to pre-war preferences or the master cleavages that underlie the primary armed actors' public identities, interests, and mobilization frames in straightforward ways (Kalyvas, 2003; Wood, 2008). Weidmann and Zürcher (2013) for instance show that exposure to both insurgent and counterinsurgent violence in Afghan villages and towns increased local polarization in the sense of creating new, diverging, and distinct loyalties within communities. I argue that the wartime polarization of public loyalties will be particularly pronounced in the wake of indiscriminate state violence, and that this process tends to be linked to the militarization of local governance.

One process through which indiscriminate state violence drives local processes of polarization and militarization is through the joint promotion of pro- and counterinsurgent mobilization. As discussed above, indiscriminate state violence is likely to reduce both the incentives and capacities of civilians to stay neutral, instead luring noncombatants into insurgent ranks. However, joining rebel groups is not an option that is open to everyone, but one that is typically restricted to the young and healthy, and to those that fit the screening and recruitment criteria of insurgent groups (Kalyvas and

[15] For definitions, see chapter 3, for an overview of these processes, see Wood (2008).

Kocher, 2007). Similarly, the choice to migrate depends on the perceived availability of safer places to go, and on the capability and willingness to abandon one's bases of livelihood.[16] Community-based militarization in the form of counterinsurgent mobilization, as discussed in chapter 6, can be one strategy for local residents to resist the 'victim category' and to provide for their own security if they are not capable or not willing to leave their homes or join rebel groups.[17]

In chapter 6, I have developed a theoretical argument on the conditions and mechanisms that link indiscriminate state violence to counterinsurgent collective action at the community level, a type of wartime mobilization that is intrinsically tied to both polarization and militarization. I focus specifically on conditions of irregular war and the theoretically most interesting case of 'autonomous', 'bottom-up', or 'community-based' mobilization, as opposed to government-imposed 'top-down' mobilization. I argue that one common type of indiscriminate state violence, marked by direct and collective targeting, is likely to promote counterinsurgent mobilization through the interlinked mechanisms of signaling and the militarization of local governance. While I have focused on the specific conditions of direct and collective targeting in irregular war in chapter 6 to explain subnational variation in counterinsurgent collective action, I assume similar processes to occur in the wake of indiscriminate state violence under conditions of non-irregular war, particularly in areas where insurgents fail to maintain high levels of internal and territorial control.[18]

First of all, counterinsurgent mobilization is one of the few strategies available to communities that fall into the state's 'profiling scheme' to demonstrate that they do not fit into this category.[19] Particularly for segments of the population for whom joining

[16]Both of these aspects tend to hinge upon the social and economic capital of households and individuals, as well as on collective attributes and their salience in the context of actual conflict dynamics; see for instance Steele (2009).

[17]Of course, wartime migration is not always a matter of choice (Steele, 2011).

[18]Note that in this chapter, as opposed to chapter 6, I am not trying to explain the effect of state violence on counterinsurgent collective action at the microlevel, i.e., specifically at the level of towns and villages, which is why the assumptions about the type of violence and the type of warfare can be relaxed. In irregular war, direct state violence not only carries implications for the mechanism of signaling, but also for insurgent territorial control. This is not necessarily the case under conditions of non-irregular war, where military power is more equally distributed.

[19]See also Lyall, 2009, 337 (although he focuses on shelling attacks and hence, indirect violence, which is not in line with my argument) and Kalyvas 2006, 167f. for examples of counterinsurgent mobilization

the insurgents or flight are not viable options, counterinsurgent mobilization may be a viable strategy to avoid victimization by state forces through the very public display of defection from insurgent groups.[20] This type of 'signaling' is most likely to occur if state violence is neither entirely arbitrary nor exclusively indirect (as for instance in the case of aerial bombings), and if insurgents are not willing or not capable of providing protection.

Often, however, the implementation of armed self-defense at the community level does not just serve the purpose of signaling, but is part of a more comprehensive process of institutional change that is geared towards communities' self-reliant provision of order and security. The militarization of local governance occurs to some extent during most civil wars (Wood, 2008), as both insurgents and state forces seek to govern areas under their control (Wood, 2003*a*; Kalyvas, 2006). While this type of institutional transformation has received some attention in studies focusing on patterns of 'rebel governance' (Weinstein, 2007; Arjona, 2009*a*; Mampilly, 2011; Zürrer, 2013), the process through which civilians themselves transform their institutions in adaption to wartime violence remains less theorized in the civil war literature. Particularly under conditions where order and protection are provided by neither state agents nor insurgent groups, civilian agency can be a powerful source of institutional change that reflects the adaption to wartime conditions of pervasive insecurity (e.g., Fumerton, 2001; García-Godos, 2006).

Besides the provision of order and governance, and similar to the processes driving pro-insurgent mobilization, counterinsurgent collective action tends to be reinforced by grievances and in-process benefits (Wood, 2003a; Cederman, Gleditsch and Buhaug, 2012). The disclosure of not only state-sanctioned abusiveness, but also of the rebels' weakness and their failure to protect their alleged constituency, can strongly undermine the warring parties' aspirations to secure legitimacy and support. While the perceived illegitimacy of insurgents as prospective rulers has been argued to be a powerful de-

in the wake of state violence.

[20] As outlined above, joining insurgent groups is typically a choice that is restricted to those individuals who are young and fit the insurgents' recruitment profile, while flight is the very last option for inhabitants of poor and isolated areas, regions often preferred as spaces of refuge by insurgent groups (see for instance Kalyvas and Kocher, 2007; Degregori, 1998, and chapter 6).

terminant of civilian resistance to insurgent rule in many cases, including Colombia (Arjona, 2009*b*), Chechnya (Lyall, 2009), and Peru (Degregori, 1998; La Serna, 2012), counterinsurgent collective action should not be equated with the existence of private loyalties to the state. Instead, qualitative evidence suggests that the mobilization for governance and self-defense helps communities to adapt to conditions of high insecurity, and to restore a sense of shared identity, order, and agency in a context of institutional disruption and victimization (on Peru see for instance Starn, 1995, 568). While the institutionalization of armed self-defense may help to restore a sense of agency and security in war-affected communities, and while this process does not necessarily imply the existence of private loyalties to the state, militias often become perpetrators of human rights violations themselves, and the militarization of local governance tends to have social and political consequences that endure long after the fighting ends (Wood, 2008; Bateson, 2012*b*; Theidon, 2013). In particular, the joint process of pro-and counterinsurgent mobilization may drive deep wedges into war-affected communities. In the Peruvian civil war, for instance, pro- and counterinsurgent mobilization occurred not only sequentially in the sense of some individuals and communities switching sides throughout the conflict, but also in parallel, such as when some community members joined the rebels and others stayed behind to organize themselves against the insurgents (e.g., Starn, 1995; Del Pino, 1998; Degregori, 1998; Sánchez, 2012). The 'intimate nature' of civil war violence (Kalyvas, 2006; Theidon, 2006) implies that both conflict termination and post-war consolidation do not exclusively hinge upon decisions of political and military leaders alone, but that they instead depend in crucial ways on local-level processes. The more polarized and militarized social relations become at the local level, the more intricate processes of peacebuilding and reconciliation will be.

### 7.2.4 Hypotheses

Based on the mechanisms outlined above, in this section I derive specific hypotheses about the consequences of state violence for subsequent processes of armed competition and the prospects of various types of conflict termination. I hypothesize, in short, that

indiscriminate state violence will reduce the prospects of both negotiated settlements and decisive government victories, but at the same time increase the probability of insurgent victories and low activity outcomes, the latter being associated with a greater risk of conflict recurrence.

To start with, indiscriminate state violence is likely to harm insurgents in their offensive military power, at least in the short run, by inflicting damage on their sources of intelligence and retreat and their organizational capabilities (e.g., Arreguín-Toft, 2005; Downes, 2007*a*; Lyall, 2009). These limitations may at least temporarily translate into reduced insurgent military activity, bringing armed competition to rest and reducing the rebels' chances of gaining the upper hand in the short run. Indiscriminate state violence may further compromise insurgent military activity and effectiveness by promoting *counter*insurgent mobilization, as discussed above and theorized in chapter 6. Lyall (2009), who investigates the effect of indiscriminate state violence in the form of shelling attacks in Chechnya, finds subsequent insurgent violence to be reduced in shelled villages compared to spared ones, an effect he partially attributes to counterinsurgent mobilization at the local level.[21] Indeed, counterinsurgent mobilization on behalf of civilian communities is likely to impose severe constraints on the insurgents' military effectiveness by forcing them to divert resources away from fighting the incumbent to repress civilian resistance and, if unsuccessful, relocate their operations to other areas.

At the same time, however, indiscriminate state violence is likely to promote pro-insurgent mobilization as well, a process that is well established in the civil war literature (e.g., Mason and Krane, 1989; Goodwin, 2001; Wood, 2003*a*; Kalyvas and Kocher, 2007). Importantly, this mechanism is perfectly consistent with a positive effect on counterin-

[21] As Lyall argues: "[E]ven lesser amounts of indiscriminate violence can undermine an insurgent organization's military effectiveness by driving a wedge between locals and insurgents. (...) [I]ndiscriminate violence by the state may facilitate collective action on the part of locals against insurgents, thus imposing constraints on insurgent war-fighting that can compromise its effectiveness. Indeed, if local populations come to blame insurgents, not the incumbent, for the state's repressive acts, then an insurgency may be forced to curb, if not abandon, its current tactics and strategy to avoid provoking further counter-mobilization" (Lyall, 2009, 337). Note that while I agree with Lyall's assumption that insurgent military effectiveness will be compromised by counterinsurgent mobilization, I do not share his proposition that insurgents will readily abandon their warfare strategies to avoid further civilian countermobilization (Lyall, 2009, 337). Instead, I argue that insurgents are more likely to attempt to repress insurgent resistance or, if unsuccessful, relocate their operations to other areas. See chapter 6.

surgent collective action, as argued above and in chapter 6. Pro-insurgent mobilization, in turn, is the *sine qua non* for insurgent survival. Even if state policies change, and the security benefits of participation in insurgencies recede, indiscriminate state violence is likely to promote insurgent recruitment and support in the long run through lasting grievances and moral outrage, thereby contributing to the longevity of insurgent organizations (e.g., Goodwin, 2001; Wood, 2003*a*; Peceny and Stanley, 2010).

Indiscriminate state violence also tends to influence conflict duration and termination trough its impact on insurgent fragmentation (see chapter 5). While splits in insurgent organizations are likely to temporarily divert resources away from fighting the government, insurgent fragmentation does not necessarily impair the insurgents' effectiveness in the longer run (Kenny, 2010). A good example for this is the Karen National Liberation Army (KNLA), the armed wing of the Karen National Union (KNU) in Myanmar, from which several splinters broke away since the 1990s, but which nevertheless remains a cohesive and extremely effective guerrilla army (Kenny, 2010, 547). Indeed, while insurgent splits might lower insurgent military activity and effectiveness in the short term, this is not necessarily true in the longer run. This is straightforward to see if we consider the underlying mechanisms, as theorized in chapter 5 and summarized above. According to my arguments developed in capters 5 and 6, processes of insurgent fragmentation and community-based counterinsurgent mobilization should also reinforce each other, as insurgent fragmentation is partially driven by weakened civilian support bases, and as counterinsurgent mobilization is promoted under conditions where internal insurgent control is diluted.[22]

While not necessarily undermining the effectiveness of insurgent organizations, internal splits will complicate negotiated forms of conflict resolution in several ways. First, insofar as 'original' insurgent organizations and splinters typically compete for support among the same constituency, fighting the government can become one of the primary means not only to achieve political change, but also to trump insurgent rivals in the

[22]Likewise, counterinsurgent collective action tends to impede the consolidation of insurgent territorial control, while insurgents will be most capable to suppress counterinsurgent resistance in areas where they enjoy full sovereignty. See chapter 6.

quest for popular support (e.g., Wucherpfennig, 2011).[23] Second, negotiation processes are complicated when insurgent organizations split, as multiple actors and shifting actor configurations complicate bargaining processes by aggravating information asymmetries and commitment problems (e.g., Cunningham, 2006; Walter, 2009).[24] Third, insurgent combatants can be expected to be more reluctant to lay down their arms if the circle of armed opponents is not exclusively limited to agents of the state. Lastly, local processes of polarization and militarization will not only complicate the demobilization of fighters, but also play into the hands of radical elements that persistently continue their mobilization efforts, thereby further undermining the prospects of stable conflict resolutions and increasing the risk of conflict recurrence.

In sum, I expect that indiscriminate state violence, while temporarily suppressing the offensive military capabilities of insurgent groups and armed competition in general, will promote both insurgent survival and the rebels' chances of eventual success, while reducing the prospects for decisive incumbent victories and negotiated settlements.

Formulated in the standard terminology of the civil war literature, the following hypotheses can be derived:

**H3**$_a$ Indiscriminate state violence increases the probability of conflicts ending in insurgent victories.

**H3**$_b$ Indiscriminate state violence decreases the probability of conflicts ending in government victories.

**H3**$_c$ Indiscriminate state violence decreases the probability of conflicts ending in negotiated settlements.

**H3**$_d$ Indiscriminate state violence increases the probability of conflicts ending in low activity outcomes.

[23] Note that Wucherpfennig (2011) restricts his argument to insurgent organizations that fight on behalf of excluded ethnic groups.

[24] For a similar argument regarding the positive impact of actor fragmentation in self-determination movements on conflict and violence, see Cunningham, Bakke and Seymour (2012).

To be sure, in order to discern the hypothesized effects in the empirical analysis, it will be critical to adjust for alternative explanatory factors and potential confounders that underlie both state violence and patterns of conflict termination. These factors will be discussed in detail in the next section.

## 7.3 Estimation Framework and Empirical Approach

### 7.3.1 Causality and Covariate Balance

The most pressing problem studies of the effect of violence have to deal with is selection bias, i.e., the fact that the determinants of state violence may well be related to the outcomes of interest in the first place. One solution is to rely on the conditional independence or selection on observables assumption and to reduce model dependence through data preprocessing.[25] As outlined in chapter 4, this assumption states that conditional on a vector of confounders X, treatment assignment (i.e., exposure to violence) is independent from potential outcomes. Relying on the conditional independence assumption, I will combine two strategies for causal inference in observational studies: First, I use entropy balancing (Hainmueller, 2012; Hainmueller and Xu, 2013) to achieve balance on theoretically relevant confounders between 'control' and 'treated' units and to reduce model dependence. Second, I rely on regression adjustment to control for remaining covariate variation between treated and control units. 'Treatment status' here refers to whether or not a dyad was exposed to one-sided state violence over the period of the dyadic conflict or not and its treated as a binary variable in the entropy balancing. The effect of exposure to violence as well as different intensities and functional forms thereof are then assessed in the regression analysis.

[25] Statistical techniques to mitigate selection bias directly within the framework of duration analysis are still in their early stages (e.g., Boehmke and Meissner, 2008).

### 7.3.2 Modeling Conflict Duration

When it comes to the estimation framework, one approach to modeling processes of conflict duration and termination is to organize the data into dyad-years and to measure the dependent variable as a binary outcome that denotes 1 if a conflict ends in a given year and zero when it continues. Once a dyadic conflict ends, it drops out of the 'risk set' of ongoing conflicts (Beck, Katz and Tucker, 1998; Box-Steffensmeier and Jones, 2004). Unless the baseline hazard is explicitly modeled, binary models share similarities with parametric models featuring an exponential distribution, i.e., where the hazard rate is flat with respect to time. As each dyad-year is repeatedly recorded in the dataset (unless conflicts end after one year), it is crucial to account for temporal dependence. This can either be done by including temporal dummy variables, a variable measuring time or smoothing functions such as splines or lowess (Beck, Katz and Tucker, 1998; Box-Steffensmeier and Jones, 2004, 74ff.,87ff.). One disadvantage of this approach is that the parametric assumptions about the baseline hazard are quite strong unless they are theoretically justified.[26]

As my theory is agnostic about the exact form of the baseline hazard, I rely additionally on a semiparametric approach, the Cox proportional hazards model. In the Cox model, the baseline hazard rates are not assumed to have a particular parametric form. The hazard rate is, however, proportional (Box-Steffensmeier and Jones, 2004, 47ff.). The Cox model is based on a *partial* likelihood function in the sense that, due to the lack of assumptions about the hazard rate, only the ordered failure times (rather than the actual failure times) are considered (Box-Steffensmeier and Jones, 2004, 51ff.). Because coterminous failures ('ties') cannot be accounted for in this setup, one has to rely on approximations in the case of ties. I rely on the Breslow approach, which is the most commonly used approximation method to deal with ties. In essence, the Breslow method approximates the partial likelihood function by assuming that tied failures occur sequentially from a risk set that includes all tied and untied cases at risk at a given failure

[26] While time dummies are the most general way to control for duration dependencies (Box-Steffensmeier and Jones, 2004, 75f.), they also consume many degrees of freedom.

time (Box-Steffensmeier and Jones, 2004, 54).

### 7.3.3 Modeling Conflict Outcomes

As conflicts can end in multiple ways and the hypotheses make specific predictions about different types of conflict termination, just accounting for the 'risk' of conflict termination is not enough. I therefore also rely on statistical models that allow a direct estimation of the conditional probability of different types of conflict termination. Specifically, I will rely, first, on a multinomial logit model, and second, on a proportional hazards competing risks model.

The basic principle of the multinomial logit approach mirrors that of a series of ordinary binary logits, but is generally more efficient, as in separate binary logits, each model only includes the respective comparison, which implies that all observations referring to other outcome categories are dropped (Golder, 2008; Long and Freese, 2006). Where k is the number of possible outcomes, the multinomial logit model estimates k-1 logit models with reference to a baseline category, thereby obtaining parameter estimates on the outcome-specific hazards (Box-Steffensmeier and Jones, 2004, 173ff.).

One drawback of this approach is that the multinomial logit model relies on the assumption that the hazards for each of the k outcomes are independent from each other (conditional on the covariates). In other words, it relies on the assumption of the *independence of irrelevant alternatives* (IIA) (Long and Freese, 2006, 243ff.). However, within the context of violent conflict, this assumption is arguably very strong. The likelihood of a negotiated settlement, for instance, may be increased under conditions where the prospects for government and rebel victory are very low (cf. Cunningham, Gleditsch and Salehyan, 2009*a*). Another problem is, again, that the parametric assumptions are relatively strong too (Box-Steffensmeier and Jones, 2004).

As an alternative to the multinomial logit model, I rely on the competing risks approach developed by Fine and Gray (1999), which is a semiparamteric approach that allows modeling the subhazard for specific types of conflict termination. In other words, the Fine and Gray approach mirrors the Cox approach yet estimates subhazards instead

of conventional hazards. It thus allows estimating the probability of a given type of conflict termination at a given point in time, given that no termination type has occurred yet (Cleves, Gould, Gutierrez and Marchenko, 2010, 382ff.).[27]

### 7.3.4 Unit of Analysis and Dependent Variable

Many governments involved in intra-state armed conflicts are faced by multiple armed rebel groups. Studies dealing with conflict-years or conflicts as unit of analysis are 'over-aggregated' in the sense that they are not measured for specific rebel actors in a conflict. This study takes the government-rebel dyad as the most basic actor-constellation of investigation, based on Harbom, Melander and Wallensteen (2008) and Cunningham, Gleditsch and Salehyan (2009*a*). Because the main independent variable, one-sided violence against civilians, is only available for 1989 onwards, I restricted the period of analysis to conflict episodes that started in 1989 or after in order to better handle problems of selection bias (as discussed below). The period of investigation is 1989-2003.

The unit of analysis is the dyad-spell and the dyad-year, depending on the estimation technique. I rely on the Uppsala Conflict Data Program (UCDP)[28] and the Non-State Actor (NSA) data (Cunningham, Gleditsch and Salehyan, 2009*a*) to identify the relevant conflict dyads. The basic conflict episodes are identified based on the NSA dataset (Cunningham, Gleditsch and Salehyan, 2009*a*), version 2.2. The UCDP one-sided violence data (Eck and Hultman, 2007)[29] were manually linked to the UCDP dyadic dataset (Harbom, Melander and Wallensteen, 2008).[30] The UCDP data was then connected to the NSA dyadic data, based on the NSA dataset version 3.3 (Cunningham, Gleditsch and Salehyan, 2009*a*).[31] 1-day coups were excluded from the dataset.

[27] For an application of this type of competing risks model to the study of civil war violence and conflict termination, see Wood and Kathman (2013).

[28] `http://www.pcr.uu.se/data/`

[29] Version 1.3-2008.

[30] Version 1.0.

[31] Following the UCDP criteria, 'internal armed conflict' here refers to the violently contested incompatibility between a government and one or more armed opposition group(s), where the use of armed force between the parties results in at least 25 battle-related deaths in one calendar year. By the criterion of one party being governmental, the scope of this study is limited to so-called 'state-based' conflicts (Gleditsch, Wallensteen, Eriksson, Sollenberg and Strand, 2002). This includes conflicts with and without foreign involvement as defined by UCDP/PRIO, i.e., the government, the opposition or

The dependent variable is the conditional probability that a conflict ends at a given point in time and/or, depending on the model, the type of conflict termination, i.e., a categorical variable indicating whether a dyadic conflict[32] ends in government victory, rebel victory, formal agreement or no/low activity. Specifically, in the empirical analysis I will estimate the likelihood of a given type of termination occurring in a particular year, given that this type of 'event' did not occur up to that year.

Based on Cunningham, Gleditsch and Salehyan (2009*a*), the outcome is coded into four possible categories, while 'ongoing' is the baseline category:

1. rebel victory,

2. agreement (peace agreement, ceasefire),

3. government victory,

4. no or low activity/other.

Formal agreements include ceasefire agreements that aim at regulating the behavior of the warring parties as well as peace agreements that address the incompatibility that underlies the conflict, either by a form of settlement or by explicitly outlining a plan to regulate the warring parties' incompatibility. A victory refers to an outcome where one side is either defeated or eliminated, or otherwise succumbs to the other by capitulation or public announcement (Kreutz, 2006; Kreutz, 2008; Kreutz, 2010).[33]

The remaining category, 'no or low activity/other', refers to conflicts that fall below the threshold of armed activity that defines an armed conflict for at least two consecutive years, but without having experienced any of the other types of conflict outcome. While this outcome is often treated as a residual category in conflict studies, I believe that this

both sides may or may not receive direct and active troop support from other governments (Gleditsch et al., 2002).

[32]When referring to 'intra-state conflict', I follow the criteria of UCDP/PRIO (Gleditsch et al., 2002; Harbom, Melander and Wallensteen, 2008).

[33]For detailed discussions of these conventional definitions, see (Kreutz, 2006; Kreutz, 2008) as well as the UCDP Database `http://www.pcr.uu.se/research/UCDP/data_and_publications/definitions_all.htm`. Note that the UCDP criteria for conflict termination differ from the one applied in this study in that one year without conflict activity is sufficient for a new conflict episode to be coded in case of conflict recurrence (Kreutz, 2010).

is an interesting category itself. One can think of this category as the 'least decisive' – conflict activity at least temporarily ceases, and yet there has been neither an agreement nor a victory by either side.[34]

I follow Cunningham, Gleditsch and Salehyan (2009*a*) in coding new conflicts after a break in fighting that separates periods of violence over the same incompatibility for at least two consecutive calendar years – a conventional procedure in the civil war literature. Thus, if a conflict 'ends' in the sense that there is no conflict activity for at least two consecutive years, and then restarts again, a new conflict is coded. One-year gaps in conflict activity are, however, coded as 'ongoing'.

The distribution of the dependent variable in a dyad-year set up is presented in table 7.1 (see also detailed information in the appendix):

Table 7.1: Distribution of Outcomes by Dyad-Year

| Outcome | Freq. | Percent | Cum. Percent |
|---|---|---|---|
| Ongoing | 546 | 81.86 | 81.86 |
| Agreement | 41 | 6.15 | 88.01 |
| Rebel Victory | 15 | 2.25 | 90.25 |
| Government Victory | 13 | 1.95 | 92.20 |
| Low or No Activity/Other | 52 | 7.80 | 100.00 |
| Total Dyad-Years | 667 | 100.00 | |

### 7.3.5 Independent Variables

To construct the core independent variables, the occurrence and intensity of indiscriminate state violence, I rely on the same data source as described in detail in chapter 5, the UCDP one-sided violence data (Eck and Hultman, 2007). The basic assumption here is that publicly reported massacres by state forces against civilians will be widely perceived as indiscriminate.

I use, first, a dummy variable to code whether a given government involved in a dyadic

[34]Kreutz (2010) gives the following examples for this category: "[F]ighting may continue but not reach the threshold of 25 battle-related deaths in a year, or a party may choose to withdraw for tactical reasons or due to leadership change, decide to pursue a non-violent strategy instead of armed force, explore the potential of opening up negotiations, or lose important support from a powerful ally. There are also cases when one side in a conflict ceases to exist, is defeated in another simultaneous conflict, or simply withdraws from contesting the incompatibility" (Kreutz, 2010, 245).

conflict employed one-sided violence against civilians in a given year and, second, the natural logarithm of the number of fatalities resulting from state one-sided violence per year. In case of governmental violence where the perpetrating government was actively involved in several conflict dyads during the year of civilian targeting, *all* dyad-years the respective government was part of are coded positively. The fatalities are divided by the number of dyads in case of several conflict dyads in a country. This approach has been taken because, while there is strong evidence that one-sided violence occurs primarily in the context of armed conflicts (Eck and Hultman, 2007), the information provided by the UCDP database is typically not detailed enough to code state violence more precisely, and most case reports suggest that states that employ one-sided violence have a tendency to do so in general and not exclusively limited to one particular internal armed conflict. In the entropy balancing, the 'treatment' refers to whether there was one-sided violence by the government actor of a given conflict dyad during *any* year of the conflict.

### 7.3.6 Theoretically Relevant Confounders

There are several theoretically relevant covariates that affect both selection into 'treatment' as well as the outcome variable and that are therefore included. I rely on two combined strategies, entropy balancing and covariate adjustment. To avoid 'post-treatment bias' (King and Zeng, 2006), all confounders are measured 'pre-treatment', during the first phase of the war, or at the time point of conflict onset.

#### Recruitment from Excluded Ethnic Groups

Ethnic exclusion has shown to be a strong predictor not only of civil war onset (Cederman and Girardin, 2007; Cederman, Wimmer and Min, 2010)[35], but also of conflict duration and outcomes (Cederman, Gleditsch and Buhaug, 2012; Wucherpfennig et al., 2012). Moreover, Wucherpfennig (2011) also finds that 'spoiler dynamics' that tend to signifi-

[35]On the relationship between political and economic inequalities and the risk of civil war onset, see Cederman, Gleditsch and Weidmann (2011).

cantly prolong civil wars are likely to be more pertinent when rebel organizations fight on behalf of excluded ethnic groups.

In addition to being an important predictor of the dependent variable, recruitment from excluded ethnic groups is a potentially powerful predictor of state violence. Even in conflicts that do not revolve around ethnicity as the main master cleavage but where certain ethnic groups are exclusively associated with insurgent (but not state) recruitment – as in the case of Peru (see chapter 6) – ethnicity is often one of the main 'profiling' attributes used in campaigns of indiscriminate state violence. There are several potential reasons for this. First, the lack of access to high-quality information is one of the most common causes of indiscriminate state violence (Kalyvas, 2006), and ethniciy – typically together with geography – is often the most visible 'marker' to identify target populations. Second, the combination of past ethnic exclusion and wartime ethnic mobilization tends to endogenously increase polarization and ethnic group solidarity (Cederman, Gleditsch and Buhaug, 2012; Wucherpfennig et al., 2012), which should not only prolong conflicts but also render ethnic targeting against suspected collaborators of insurgent groups by state agents much more likely. Third, to the extent that nationalist exclusion reveals state preferences (Wucherpfennig et al., 2012), it is also reasonable to assume that regimes with a historical record of ethnic exclusion will not only be involved in longer internal conflicts but also have a greater tendency for indiscriminate violence in the sense of targeting based on ethnic profiling. As Goodwin notes:

> "Particularistic mentalities such as racism obviously make it much easier for military officers and/or their charges to abuse people who are seen as 'naturally' or culturally inferior; in fact, military abuses in Guatemala and Peru in particular were clearly associated with the endemic racism of military officers, as well as political and economic elites, in those countries" (Goodwin, 2001, 248)

Thus, I include a variable indicating whether the rebel group of a dyad recruits its members from excluded ethnic grous. Specifically, this variable captures whether a rebel group recruits its members from a group that has been excluded from state power at least once between 1945 and 1989. I follow Wucherpfennig et al. (2012)[36] in focusing on the

[36]see also Cederman, Gleditsch and Buhaug (2012).

political dimensions of ethnicity and include a dummy variable that indicates whether insurgent groups (but not state forces) recruit from groups that have been excluded in the past. The coding of this variable is based on the ACD2EPR dataset (Wucherpfennig et al., 2012)[37] and the Ethnic Power-Relations Dataset EPR-ETH[38] (Cederman, Wimmer and Min, 2010).[39] Note that this variable is not just an interaction term of ethnic recruitment and ethnic exclusion (in which case the constitutive terms would have to be included in the regression models as well), but a specific operationalization of insurgent recruitment from marginalized groups.[40]

### Regime Type

Several scholars have found that democracy is positively correlated with conflict duration (e.g., Cunningham, Gleditsch and Salehyan, 2009*a*; Wucherpfennig et al., 2012), but the results are far from consistent (e.g., Lyall and Wilson, 2009; Balcells and Kalyvas, 2012). Theories and empirical results are equally mixed when it comes to the impact of regime types on the propensity to victimize civilians in times of war (e.g., Valentino, Huth and Balch-Lindsay, 2004; Valentino, Huth and Croco, 2006; Downes, 2007*b*). Hence, while my theory is agnostic about the influence of the regime type on conflict duration and outcome, it has been theorized to be an source of alternative explanations and a relevant confounding variable. To control for this potential determinant of both the 'treatment' and the dependent variables, I include a dummy variable, based on Cunningham, Gleditsch and Salehyan (2009*a*), that measures whether the institutions of a country were classified by 6 polity scores or higher at the time point of conflict onset.

[37] Version 1.2

[38] Version 2

[39] The ACD2EPR and the EPR-ETH data were both downloaded from the `http://www.icr.ethz.ch/data` [most recent access March 13, 2013] and correspond to the GrowUp Research Front End (RFE) release 1.0.

[40] The variable specifically measures whether insurgent groups (but not state forces) recruit from groups that have been excluded in the past based on their ethnicity. A simple interaction between ethnic recruitment and ethnic exclusion would not capture this. See Wucherpfennig et al. (2012) for more information on the data generation process and the relevance of distinguishing different types of linkages between rebel organizations and ethnic groups.

### Previous Conflict Activity

I also include a dummy variable indicating whether a given conflict dyad had been active in the past, prior to the conflict episodes included in this dataset, and is thus a recurring conflict. This variable is therefore a proxy for the intractability of a given conflict, while at the same time controlling indirectly for unobserved confounders associated with previous conflict activity, such as social and institutional legacies. The measure is adopted from Cunningham, Gleditsch and Salehyan (2009*a*).[41]

### Insurgent Territorial Control

Territorial control has been argued to be one of the most important determinants of civilian collaboration (Wood, 2003*a*; Kalyvas, 2006), insurgent recruitment and defection (e.g., Gates, 2002; Arjona and Kalyvas, 2007; Kalyvas, 2008*b*), and insurgents' defensive capacity, i.e. their ability to evade state repression (Cunningham, Gleditsch and Salehyan, 2009*a*). The capability of insurgent groups to control peripheral areas is thus expected to be positively associated with their longevity, as well as indirectly with the state's capacity for selective violence (Schutte, 2011).[42]

I rely on the dataset of (Cunningham, Gleditsch and Salehyan, 2009*a*)[43] and include a dummy variable that measures whether the rebel group controls territory in the first phase of the conflict. The variable is coded 1 in case the insurgents do control territory, and 0 otherwise.[44]

### Prior Insurgent Violence

I assume that the both the causes and consequences of state violence are related to strategies of insurgent violence. Some studies also find that insurgent one-sided violence

[41] Version v3.3., March 2012.

[42] Furthermore, Goodwin (2001) argues that insurgent territorial control also is likely to increase the impact of state violence: "Indiscriminate state violence is especially likely to backfire, generating even greater levels of armed resistance, when states do not fully penetrate and control the territories they claim to rule. When repressive states are infrastructurally weak, that is, revolutionaries can more easily mobilize popular support in such territories" (Goodwin, 2001, 235).

[43] Version v3.3., March 2012.

[44] The value zero refers to 'no territorial control' or cases that are unclear with regards to this variable.

is significantly related to conflict duration and outcomes (e.g., Wood and Kathman, 2013). I thus include a dummy variable that indicates the use of one-sided violence by rebel groups prior to the onset of indiscriminate state violence. I rely on the UCDP one-sided dataset (Eck and Hultman, 2007), which unlike other global datasets on civilian abuse, not only captures incidents of mass killing by governments, but also lower levels of violence by state *and* non-state actors.

**Insurgent Central Control**

Recent research that focuses on the origins and effects of the organizational structure of rebel groups, links recruitment strategies and the failure to establish strong internal discipline structures to civilian victimization (e.g., Humphreys and Weinstein, 2006*b*; Weinstein, 2007) and military ineffectiveness (e.g., Johnston, 2008; Mahmud and Vargas, 2008). I thus also include a variable indicating whether a rebel group has a strong central command that manages to control rebel forces. This variable takes the value of 1 if the rebel group has a clear central command that exercises a high level of control over the organization and 0 otherwise (Cunningham, Gleditsch and Salehyan, 2009*a*; Cunningham, Gleditsch and Salehyan, 2009*b*).

**Relative Fighting Capacity**

In addition, it is important to control for the rebels' offensive military strength. Apart from the straightforward relevance of this variable for dynamics of armed competition, military asymmetries are also important when it comes to negotiation processes. Walter (2009, 254f.) for instance argues that armed conflicts with large power asymmetries will be more difficult to solve, as weak rebels are less likely to be offered comprehensive power-sharing agreements, and therefore credible commitments will be hard to reach. Furthermore, the rebels' relative offensive capacities influence the level of perceived threat to the regime and hence, the probability of campaigns of indiscriminate state violence (e.g., Valentino, Huth and Balch-Lindsay, 2004). Hence, a variable is included for the fighting capacity of rebel groups, i.e., their ability to challenge the state in direct military

confrontations. The dichotomous variable included takes the value of 1 of rebel groups are rated to have 'high' fighting capacity relative to the government; it is coded 0 if the relative fighting capacity of insurgents is rated 'low' in Cunningham, Gleditsch and Salehyan (2009*a*).[45].

### Gross Domestic Product Per Capita

The per capita gross domestic product has repeatedly been shown one of the strongest empirical predictors of civil war. It has been used as a proxy for the opportunity costs of (prospective) recruits of rebel groups[46] (Collier and Hoeffler, 2004), employed as a measure of state strength[47] (Fearon and Laitin, 2003), and suggested to capture the capacity of states to penetrate the periphery and to reduce the salience of local cleavages[48] (Kalyvas, 2003).

Yet while many different causal mechanisms might underlie this finding, virtually all of them are consistent with the notion that economic state weakness is associated with dynamics that not only incite, but also prolong civil wars. Moreover, and as outlined above, authors such as Goodwin (2001) have argued that the positive effect of indiscriminate state violence on insurgent mobilization will be strongest in states that are infrastructurally weak, an attribute commonly proxied by the per capita gross domestic product. Hence, I include one variable that measures the per capita gross domestic product, based on Cunningham, Gleditsch and Salehyan (2009*a*) and Gleditsch et al. (2002) respectively.[49]

[45]'Otherwise' here refers to 'high', 'moderate', and 'unclear'. Version v3.3., March 2012.

[46]'Recruits must be paid, and their cost may be related to the income forgone by enlisting as a rebel" (Collier, Hoeffler and Söderbom, 2004, 569).

[47]"We agree that financing is one determinant of the viability of insurgency. We argue, however, that economic variables such as per capita income matter primarily because they proxy for state administrative, military, and police capabilities" (Fearon and Laitin, 2003, 76).

[48]"[O]ne of the most robust predictors of civil war onset, per capita gross domestic product, may capture in part the effect of local cleavages; poor, nonmodernized states have failed to penetrate their periphery effectively, which would have reduced the salience of local cleavages and thus created opportunities for rebels to tap into them" (Kalyvas, 2003, 76).

[49]I rely on (Cunningham, Gleditsch and Salehyan, 2009*a*), whose GDP data are based on (Gleditsch et al., 2002).

### Population

Another frequently used control variable in studies of conflict duration and outcome is the size of a state in terms of its population (e.g., Cunningham, Bakke and Seymour, 2012; Wucherpfennig et al., 2012; Balcells and Kalyvas, 2012). Similar to the gross domestic product, size-related effects are of course consistent with a variety of theoretical explanations. Wimmer, Cederman and Min (2009, 323), for instance, argue that populations size is a valid measure for state cohesion, based on the assumption that large states are less likely to have penetrated the peripheries of their territories in the past, and that it is less likely in large states that the whole population identifies with the state regardless of who controls the government. I adopt the logged population measures of Cunningham, Gleditsch and Salehyan (2009*a*) and Gleditsch et al. (2002) respectively.

### Irregular War

In the existing literature, the causes and consequences of civil war violence have largely been theorized within the analytical framework of so-called 'insurgencies' marked by a steep military asymmetry and the dominance of so-called 'guerrilla warfare' (e.g., Lyall and Wilson, 2009; Schutte, 2011; Schutte, 2012). Yet even a cursory look at the contemporary landscape of conflict reveals that the period of investigation is characterized by a considerable amount of conflicts that do not fit neatly into this category. As intra-state conflicts do not seem to represent a homogeneous population, the causes and effects of civil war violence may vary across different types of conflicts (e.g., Balcells, 2010; Kalyvas and Balcells, 2010; Duyvesteyn, 2005). For instance, the option of 'switching sides' might be less widely available for civilians where armed combat features front-lines (Kalyvas, 2005; Kalyvas and Kocher, 2007). Moreover, when a strong state is absent, the incentives for building large, cohesive organizations and securing civilian support may be reduced among insurgent groups (e.g., Weinstein, 2007, 321f.).

I thus include a variable identifying conflicts that can be clearly identified as 'irregular wars' (Kalyvas and Balcells, 2010; Balcells and Kalyvas, 2012). This type of warfare, marked first of all by military asymmetry between state and rebel forces, has been

argued to be associated with mass civilian victimization (Valentino, Huth and Balch-Lindsay, 2004) as well as specific dynamics of conflict duration and termination (Walter, 2009; Balcells and Kalyvas, 2012). The coding of this variable is based on Kalyvas and Balcells (2010) and described in detail in chapter 5. As a considerable number of conflicts remain uncoded due to the exclusion of low-intensity conflicts from the analysis in Kalyvas and Balcells (2010)[50], all models reported in this chapters were replicated with this variable excluded; the results are very robust to these changes and are substantially the same with and without controlling for irregular warfare.

### Rebel Support

External support for insurgent groups tends to have a decisive influence on their resilience and military capabilities (e.g., Kalyvas and Balcells, 2010). Furthermore, it may also influence the level of perceived threat they pose to the regime, hence influencing dynamics of violence against civilians (e.g., Valentino, Huth and Balch-Lindsay, 2004). I include a variable measuring whether an insurgent group received (explicit or alleged) external support at the onset of the conflict (Cunningham, Gleditsch and Salehyan, 2009*a*).[51] Both military and non-military sources of support are included.

### Time Since Onset

In the binary and multinomial logit models, duration dependence has to be directly accounted for, and I thus include a log transformed or count variable measuring the number of years since the beginning of a given dyadic conflict episode.

[50]Note that Kalyvas and Balcells (2010) and Balcells and Kalyvas (2012) exclude low-intensity conflicts (i.e. conflicts that do not reach the threshold of 100 battle-related deaths a year) based on the assumption that their arguments on the causes and consequences of warfare technologies do not necessarily apply to small-scale conflicts.

[51]Version v3.3., March 2012.

## 7.4 Results

I start by discussing the entropy balancing. The goal of preprocessing the data through entropy balancing is to reduce the model dependence in the subsequent analysis by balancing potential confounders with respect to their first moments across treated and control units (Hainmueller, 2012; Hainmueller and Xu, 2013). Here, 'treatment' refers to whether a conflict dyad exhibits one-sided state violence at least once during a given conflict, whereas variation in the timing and intensity of state violence is accounted for later in the different duration models. The entropy weights are accordingly created in a way that balances the covariate means across treated and control units; specifically, entropy balancing ensures that the covariate distribution of the control units is comparable to the covariate distribution of treated units (Hainmueller, 2012; Hainmueller and Xu, 2013). Each control dyad is assigned the weight that corresponds to covariate values that are 'pre-treatment' and/or measured during the first year or period of the conflict; the weights then remain stable for the remaining period. Balancing is performed based on the following variables, all of which are – in case they are not time-invariant – measured either prior to or at the time of conflict onset and prior to the 'treatment' (state violence): Prior insurgent violence[52], insurgent recruitment from excluded ethnic groups, democracy, a variable indicating whether the conflict had been active in the past, relative fighting capacity, insurgent central control, insurgent territorial control, population size, and GDP per capita. Table 7.2 shows the mean, variance, and skewness for all treated and control units before and after entropy weighting, with the tolerance level of 0.015 for convergence. As can be easily seen, the entropy weighting clearly improves covariate balance on the means across treated and control units.

Turning now to the results, I begin by discussing some general findings on the consequences of state violence for conflict duration and termination, regardless of the type of conflict outcome. Table 7.3 reports the results of a discrete time formulation of conflict duration, i.e., where the data are organized in a binary time-series cross-section format and where the dependent variable is a dummy variable indicating whether a conflict

[52]This variable is measured prior to state violence.

Table 7.2: Entropy Balancing

| Before: Without weighting | 'Treated' | | | 'Control' | | |
|---|---|---|---|---|---|---|
| | mean | variance | skewness | mean | variance | skewness |
| Rebel Support | .525 | .2558 | -.1001 | .513 | .252 | -.05219 |
| Irregular | .375 | .2404 | .5164 | .3739 | .2362 | .5212 |
| Prior Insurgent Violence | .65 | .2333 | -.629 | .2087 | .1666 | 1.434 |
| Recr. from Excl. Ethnic Groups | .725 | .2045 | -1.008 | .5652 | .2479 | -.2631 |
| Democracy | .15 | .1308 | 1.96 | .2261 | .1765 | 1.31 |
| Previously Active | .3 | .2154 | .8729 | .1304 | .1144 | 2.195 |
| Fighting Capacity | .375 | .2404 | .5164 | .3913 | .2403 | .4454 |
| Insurgent Central Control | .925 | .07115 | -3.227 | .8609 | .1208 | -2.085 |
| Insurgent Territorial Control | .35 | .2333 | .629 | .313 | .2169 | .8063 |
| Population (ln) | 9.567 | 1.541 | .6648 | 9.861 | 2.979 | .7536 |
| GDP/capita (ln) | 7.389 | 1.17 | .563 | 7.575 | .7685 | .7644 |
| After: With entropy weighting | 'Treated' | | | 'Control' | | |
| | mean | variance | skewness | mean | variance | skewness |
| Rebel Support | .525 | .2558 | -.1001 | .525 | .2516 | -.1001 |
| Irregular | .375 | .2404 | .5164 | .375 | .2364 | .5164 |
| Prior Insurgent Violence | .65 | .2333 | -.629 | .65 | .2295 | -.6289 |
| Recr. from Excl. Ethnic Groups | .725 | .2045 | -1.008 | .725 | .2011 | -1.008 |
| Democracy | .15 | .1308 | 1.96 | .15 | .1286 | 1.96 |
| Previously Active | .3 | .2154 | .8729 | .3 | .2118 | .8729 |
| Fighting Capacity | .375 | .2404 | .5164 | .375 | .2364 | .5164 |
| Insurgent Central Control | .925 | .07115 | -3.227 | .925 | .06999 | -3.227 |
| Insurgent Territorial Control | .35 | .2333 | .629 | .35 | .2295 | .629 |
| Population (ln) | 9.567 | 1.541 | .6648 | 9.567 | 1.791 | 1.075 |
| GDP/capita (ln) | 7.389 | 1.17 | .563 | 7.389 | .8461 | 1.158 |

terminates in a given year or not. Temporal and intra-unit dependence is accounted for by including a variable measuring time since war onset and by calculating robust standard errors that are clustered at the level of conflict dyads (Box-Steffensmeier and Jones, 2004). The models shown in table 7.3 differ in the way they control for temporal dependence: Models I-VI include a variable counting the number of years since the start of the armed hostilities, models VII-IX include the natural log of this measure. The key variable of interest, government violence against civilians, is included as a dummy variable in models I, IV and VII, indicating whether a given dyad-year was affected by one-sided state violence. The logged number of fatalities resulting from government one-sided violence (best estimate) per year is shown in models II, V, and VIII, while models III, VI and IX include in addition the logged fatalities per years squared to test for a curvilinear relationship between state violence and conflict duration.

All models include weights from entropy weights to ensure that dyadic conflicts affected by state violence and conflicts that are unaffected are balanced when it comes to key covariates that are possibly related to both state violence and the outcome of interest. Note that the dyads are balanced into two groups defined by whether they exhibited any state violence or not. While entropy weights ensure balance between the two groups that encompass 'treatment' and 'control units', the same variables that are used for the balancing are also included in the models VI-IX to control for remaining differences in crucial pre-treatment covariates across all units.

The models show that state violence increases the probability that a conflict ends; this effect is positive and statistically significant for the dummy and logged number of fatalities variable, while the notion of a curvilinear relationship is not supported. The results thus suggest that state violence tends to shorten conflicts.

Apart from the main variables of interest, the results also suggest that the probability of conflict termination decreases with the number of conflict years, and that democratic institutions are associated with longer conflicts.

Table 7.4 reports the results for a cox proportional hazards model that relaxes assumptions about the baseline hazard other than proportionality. Again, I also include

Table 7.3: BTSCS Estimates: Conflict Termination

| | I | II | III | IV | V | VI | VII | VIII | IX |
|---|---|---|---|---|---|---|---|---|---|
| Gov. Violence (0/1) | 0.562* | | | 0.684* | | | 0.704* | | |
| | (0.276) | | | (0.298) | | | (0.299) | | |
| Gov. Violence (ln) | | 0.138* | 0.028 | | 0.163* | 0.078 | | 0.167* | 0.086 |
| | | (0.060) | (0.121) | | (0.065) | (0.140) | | (0.066) | (0.143) |
| Gov. Violence (ln2) | | | 0.017 | | | 0.015 | | | 0.014 |
| | | | (0.015) | | | (0.019) | | | (0.020) |
| Time since Onset (Years) | -0.115* | -0.110+ | -0.115+ | 0.009 | 0.009 | 0.005 | | | |
| | (0.058) | (0.058) | (0.059) | (0.081) | (0.081) | (0.082) | | | |
| Irregular | | | | -0.652 | -0.702 | -0.719 | -0.678 | -0.729 | -0.744 |
| | | | | (0.451) | (0.442) | (0.447) | (0.464) | (0.455) | (0.459) |
| Rebel Support | | | | -0.298 | -0.371 | -0.398 | -0.309 | -0.383 | -0.408 |
| | | | | (0.369) | (0.369) | (0.376) | (0.381) | (0.380) | (0.386) |
| Prior Insurgent Violence | | | | -0.171 | -0.107 | -0.086 | -0.181 | -0.115 | -0.095 |
| | | | | (0.340) | (0.350) | (0.355) | (0.348) | (0.358) | (0.363) |
| Ins. Recr. from Excl. Ethn. Groups | | | | -0.304 | -0.335 | -0.342 | -0.306 | -0.336 | -0.343 |
| | | | | (0.334) | (0.337) | (0.341) | (0.341) | (0.344) | (0.346) |
| Democracy | | | | -2.129* | -2.085* | -2.085* | -2.182* | -2.132* | -2.133* |
| | | | | (0.979) | (0.970) | (0.972) | (0.969) | (0.960) | (0.961) |
| Rel. Fighting Capacity | | | | 0.520+ | 0.460 | 0.422 | 0.533+ | 0.471 | 0.435 |
| | | | | (0.299) | (0.291) | (0.302) | (0.306) | (0.298) | (0.309) |
| Previously Active | | | | -0.417 | -0.404 | -0.395 | -0.441 | -0.427 | -0.418 |
| | | | | (0.352) | (0.359) | (0.362) | (0.365) | (0.373) | (0.376) |
| Insurgent Central Control | | | | -0.057 | -0.082 | -0.099 | -0.048 | -0.075 | -0.091 |
| | | | | (0.686) | (0.686) | (0.690) | (0.692) | (0.692) | (0.696) |
| Insurgent Territorial Control | | | | -0.431 | -0.440 | -0.430 | -0.442 | -0.450 | -0.441 |
| | | | | (0.331) | (0.335) | (0.341) | (0.336) | (0.339) | (0.345) |
| Population (ln) | | | | 0.067 | 0.063 | 0.061 | 0.072 | 0.068 | 0.065 |
| | | | | (0.185) | (0.189) | (0.190) | (0.187) | (0.190) | (0.192) |
| GDP/capita (ln) | | | | 0.036 | 0.032 | 0.036 | 0.039 | 0.035 | 0.038 |
| | | | | (0.266) | (0.266) | (0.268) | (0.271) | (0.271) | (0.272) |
| Duration (log) | | | | | | | 0.103 | 0.101 | 0.088 |
| | | | | | | | (0.307) | (0.307) | (0.310) |
| Constant | -1.636*** | -1.656*** | -1.598*** | -1.726 | -1.584 | -1.517 | -1.835 | -1.680 | -1.614 |
| | (0.205) | (0.217) | (0.216) | (3.578) | (3.594) | (3.633) | (3.622) | (3.633) | (3.668) |
| Log-Likelihood | -157.848 | -157.267 | -156.853 | -143.951 | -143.442 | -143.267 | -143.850 | -143.347 | -143.193 |
| Wald $\chi^2$ | 7.749845 | 9.270184 | 13.79856 | 53.59767 | 58.74741 | 60.21764 | 52.33836 | 57.33014 | 58.56187 |
| Clusters | 148 | 148 | 148 | 148 | 148 | 148 | 148 | 148 | 148 |
| N | 667 | 667 | 667 | 667 | 667 | 667 | 667 | 667 | 667 |
| Weights | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

+ p<0.1 * p<0.05, ** p<0.01, ***p<0.001; robust standard errors adjusted for clustering on conflict dyads in parentheses.
Baseline outcome: conflict continuation; weights based on entropy balancing.

the weights from entropy balancing. The results again show a positive impact of state violence on the 'risk' of conflict termination, conditional on the included covariates and the time since conflict onset. In other words, the results demonstrate once more that state violence tends to shorten civil wars, while there is again no remarkable effect when we test or a curvilinear relationship using a square term of the logged civilian fatalities caused by state violence. The results further suggest again that democracies fight longer conflicts, while strong rebel groups (relative to the government) are associated with shorter conflicts.

While these results consistently suggest that state violence shortens conflicts, they do not inform us about the type of conflict outcome that drives these results.

Tables 7.5, 7.6, and 7.7, show the disaggregated results for multinomial logit models, where we estimate the probability of a given type of conflict outcome. In table 7.5 the results are reported for state violence as a binary variable, table 7.6 shows the results for the logged number of civilian fatalities cause by state violence per year, and 7.7 includes in addition the squared term of the logged fatalities.

We can see that state violence increases the probability of conflicts ending in 'low activity' or 'rebel victory', while there is no statistically significant effect on conflict termination through peace agreements or government victory.

Interestingly, the notion of a curvilinear relationship between state violence and the probability of rebel victory finds support in model 7.7, pointing to a convex function that resonates with the hypothesis of Kalyvas and Kocher (2007, 213) that insurgent recruitment should peak at very low and very high levels of state violence.[53]

A curvilinear – but concave – relationship is also supported for the outcome of 'low activity', suggesting that very low and very high levels of state violence decrease the probability of conflict termination relative to the baseline category of conflict continuation, while moderate levels increase it.[54]

[53]A nonlinear effect of civil war violence has also been suggested for insurgent violence. Wood and Kathman (2013) suggest a concave effect between the intensity of insurgent violence and the probability of negotiated settlements in African conflicts.

[54]The multinomial logit models also suggest that the positive effect of democracy on conflict duration is mainly driven by the low probability that conflicts end in government or rebel victories in democratic states, though the respective coefficient is negative for all conflict outcomes. The results further point to

Table 7.4: Cox Estimates: Conflict Termination

| | I | II | III | IV | V | VI |
|---|---|---|---|---|---|---|
| Gov. Violence (1/0) | 0.524* | | | 0.666** | | |
| | (0.241) | | | (0.240) | | |
| Gov. Violence (ln) | | 0.127** | 0.105 | | 0.140** | 0.216* |
| | | (0.047) | (0.088) | | (0.046) | (0.093) |
| Gov. Violence (ln2) | | | 0.003 | | | -0.009 |
| | | | (0.007) | | | (0.008) |
| Rebel Support | | | | -0.349 | -0.461 | -0.432 |
| | | | | (0.342) | (0.333) | (0.334) |
| Irregular | | | | -0.566 | -0.638 | -0.633 |
| | | | | (0.438) | (0.419) | (0.418) |
| Prior Ins. Violence | | | | -0.182 | -0.098 | -0.126 |
| | | | | (0.294) | (0.304) | (0.304) |
| Excl. Etn. Recr. | | | | -0.322 | -0.366 | -0.358 |
| | | | | (0.323) | (0.328) | (0.323) |
| Democracy | | | | -1.837* | -1.770* | -1.789* |
| | | | | (0.833) | (0.839) | (0.826) |
| Rel. Fighting Capacity | | | | 0.550* | 0.474+ | 0.517+ |
| | | | | (0.277) | (0.268) | (0.275) |
| Previously Active | | | | -0.441 | -0.421 | -0.448 |
| | | | | (0.302) | (0.310) | (0.302) |
| Ins. Central Control | | | | -0.078 | -0.123 | -0.101 |
| | | | | (0.602) | (0.606) | (0.607) |
| Ins. Terr. Control | | | | -0.354 | -0.305 | -0.354 |
| | | | | (0.303) | (0.311) | (0.315) |
| Population (ln) | | | | 0.061 | 0.057 | 0.059 |
| | | | | (0.170) | (0.171) | (0.171) |
| GDP/cap. (ln) | | | | 0.028 | 0.025 | 0.020 |
| | | | | (0.231) | (0.237) | (0.230) |
| Log-Likelihood | -422.316 | -421.017 | -420.971 | -397.643 | -396.745 | -396.252 |
| Wald $\chi^2$ | 4.725818 | 7.311676 | 10.62554 | 57.83338 | 65.53702 | 73.04665 |
| Clusters | 148 | 148 | 148 | 148 | 148 | 148 |
| N | 667 | 667 | 667 | 667 | 667 | 667 |
| Weights | Yes | Yes | Yes | Yes | Yes | Yes |

+ p<0.1 * p<0.05, ** p<0.01, ***p<0.001

Robust standard errors adjusted for clustering on conflict dyads in parentheses.

Weights based on entropy balancing; Breslow method for ties.

Table 7.5: Multinomial Logit Estimates: Conflict Termination I

| | Agreement | Reb. Victory | Gov. Victory | Low Activity |
|---|---|---|---|---|
| Gov. Violence (0/1) | 0.465 | 1.342 | -0.178 | 1.100** |
| | (0.504) | (0.851) | (1.049) | (0.419) |
| Irregular | -1.040 | 2.278** | -1.617+ | -0.618 |
| | (0.862) | (0.757) | (0.965) | (0.744) |
| Rebel Support | -0.703 | 1.966** | -2.237** | 0.163 |
| | (0.669) | (0.642) | (0.841) | (0.482) |
| Time since Onset (Years) | 0.157 | 0.217 | -0.201 | -0.075 |
| | (0.140) | (0.233) | (0.189) | (0.103) |
| Prior Ins. Violence | 0.844 | -1.626* | -0.330 | -0.209 |
| | (0.544) | (0.755) | (0.923) | (0.515) |
| Excl. Ethn. Recr. | 1.518* | -1.626+ | -1.338 | -0.981* |
| | (0.725) | (0.840) | (1.264) | (0.475) |
| Democracy | -2.229 | -11.546*** | -17.770*** | -1.533 |
| | (1.585) | (0.866) | (1.500) | (1.476) |
| Rel. Fighting Capacity | 0.340 | 4.036** | -0.452 | 0.099 |
| | (0.441) | (1.347) | (0.933) | (0.562) |
| Previously Active | -0.587 | -1.415 | -1.845+ | -0.042 |
| | (0.493) | (1.706) | (1.053) | (0.508) |
| Ins. Central Control | -0.710 | 1.488 | 5.234** | -0.239 |
| | (1.278) | (1.309) | (1.766) | (0.759) |
| Ins. Terr. Control | 0.261 | -2.771*** | -0.158 | -1.000* |
| | (0.420) | (0.558) | (0.704) | (0.490) |
| Population (ln) | -0.535 | -0.532 | 0.435 | 0.267 |
| | (0.478) | (0.471) | (0.458) | (0.251) |
| GDP/cap. (ln) | -0.593 | -1.360+ | 1.378** | 0.106 |
| | (0.682) | (0.718) | (0.492) | (0.415) |
| Constant | 5.877 | 5.875 | -19.400*** | -4.675 |
| | (9.307) | (7.116) | (5.401) | (4.822) |
| Logpseudolikelihood | | -184.111 | | |
| Wald $\chi^2$ | | 2699.046 | | |
| Clusters | | 148 | | |
| N | | 667 | | |
| Weights | | Yes | | |

+ p<0.1 * p<0.05, ** p<0.01, ***p<0.001

Robust standard errors adjusted for clustering on conflict dyads in parentheses.

Baseline outcome: conflict continuation; weights based on entropy balancing.

Table 7.6: Multinomial Logit Estimates: Conflict Termination II

| | Agreement | Reb. Victory | Gov. Victory | Low Activity |
|---|---|---|---|---|
| Gov. Violence (ln) | 0.117 | 0.346** | -0.025 | 0.194* |
| | (0.120) | (0.127) | (0.244) | (0.088) |
| Irregular | -1.070 | 2.169** | -1.559+ | -0.727 |
| | (0.842) | (0.731) | (0.919) | (0.746) |
| Rebel Support | -0.717 | 1.760** | -2.212** | 0.067 |
| | (0.660) | (0.658) | (0.785) | (0.458) |
| Time since Onset (Years) | 0.161 | 0.165 | -0.198 | -0.082 |
| | (0.140) | (0.209) | (0.194) | (0.103) |
| Prior Ins. Violence | 0.882 | -1.594* | -0.341 | -0.159 |
| | (0.562) | (0.747) | (0.900) | (0.534) |
| Excl. Ethn. Rec. | 1.526* | -1.975* | -1.329 | -0.989* |
| | (0.726) | (0.917) | (1.244) | (0.479) |
| Democracy | -2.231 | -11.732*** | -18.130*** | -1.544 |
| | (1.566) | (0.910) | (1.510) | (1.473) |
| Rel. Fighting Capacity | 0.325 | 3.735** | -0.443 | -0.026 |
| | (0.440) | (1.202) | (0.938) | (0.570) |
| Previously Active | -0.593 | -0.979 | -1.855+ | -0.004 |
| | (0.482) | (1.715) | (1.041) | (0.517) |
| Ins. Central Control | -0.714 | 1.235 | 5.126** | -0.251 |
| | (1.265) | (1.324) | (1.725) | (0.752) |
| Ins. Terr. Control | 0.239 | -2.854*** | -0.119 | -1.009* |
| | (0.425) | (0.518) | (0.661) | (0.495) |
| Population (ln) | -0.543 | -0.460 | 0.426 | 0.270 |
| | (0.478) | (0.489) | (0.450) | (0.253) |
| GDP/cap. (ln) | -0.600 | -1.270+ | 1.373** | 0.110 |
| | (0.672) | (0.694) | (0.497) | (0.417) |
| Constant | 5.989 | 5.154 | -19.252*** | -4.444 |
| | (9.187) | (7.202) | (5.391) | (4.856) |
| Logpseudolikelihood | | -183.575 | | |
| Wald $\chi^2$ | | 3042.006 | | |
| Clusters | | 148 | | |
| N | | 667 | | |
| Weights | | Yes | | |

+ p<0.1 * p<0.05, ** p<0.01, ***p<0.001

Robust standard errors adjusted for clustering on conflict dyads in parentheses.

Baseline outcome: conflict continuation; weights based on entropy balancing.

Table 7.7: Multinomial Logit Estimates: Conflict Termination III

| | Agreement | Reb. Victory | Gov. Victory | Low Activity |
|---|---|---|---|---|
| Gov. Violence (ln) | 0.083 | -1.186+ | -0.199 | 0.899* |
| | (0.338) | (0.669) | (0.785) | (0.367) |
| Gov. Violence (ln2) | 0.008 | 0.221* | 0.036 | -0.151+ |
| | (0.069) | (0.097) | (0.138) | (0.082) |
| Irregular | -1.086 | 1.770* | -1.678+ | -0.542 |
| | (0.838) | (0.710) | (0.967) | (0.729) |
| Rebel Support | -0.718 | 1.324+ | -2.273** | 0.246 |
| | (0.657) | (0.747) | (0.842) | (0.451) |
| Time since Onset (Years) | 0.164 | 0.024 | -0.197 | -0.086 |
| | (0.140) | (0.197) | (0.196) | (0.103) |
| Prior Ins. Violence | 0.896 | -1.274+ | -0.338 | -0.320 |
| | (0.602) | (0.701) | (0.950) | (0.537) |
| Excl. Ethn. Recr. | 1.539* | -1.722* | -1.347 | -0.955* |
| | (0.743) | (0.746) | (1.275) | (0.478) |
| Democracy | -2.255 | -11.449*** | -17.994*** | -1.545 |
| | (1.602) | (1.091) | (1.492) | (1.581) |
| Rel. Fighting Capacity | 0.322 | 3.356* | -0.478 | 0.236 |
| | (0.454) | (1.367) | (0.925) | (0.581) |
| Previously Active | -0.610 | -0.738 | -1.850+ | -0.076 |
| | (0.502) | (1.617) | (1.081) | (0.508) |
| Ins. Central Control | -0.723 | 1.171 | 5.275** | -0.229 |
| | (1.261) | (1.201) | (1.801) | (0.765) |
| Ins. Terr. Control | 0.226 | -2.533*** | -0.211 | -0.925+ |
| | (0.406) | (0.684) | (0.688) | (0.487) |
| Population (ln) | -0.552 | -0.501 | 0.451 | 0.274 |
| | (0.482) | (0.420) | (0.469) | (0.252) |
| GDP/cap. (ln) | -0.605 | -0.461 | 1.381** | 0.135 |
| | (0.670) | (0.655) | (0.498) | (0.454) |
| Constant | 6.101 | 1.139 | -19.547*** | -4.982 |
| | (9.151) | (6.744) | (5.359) | (5.149) |
| Logpseudolikelihood | | -180.338 | | |
| Wald $\chi^2$ | | 4302.84 | | |
| Clusters | | 148 | | |
| N | | 667 | | |
| Weights | | Yes | | |

+ p<0.1 * p<0.05, ** p<0.01, ***p<0.001

Robust standard errors adjusted for clustering on conflict dyads in parentheses.

Baseline outcome: conflict continuation; weights based on entropy balancing.

Tables 7.8, 7.9, 7.10 and 7.11 show the results of competing risks regressions following the approach developed by Fine and Gray (1999). They support the findings from the multinomial models, i.e. that state violence increases the probability that a conflict ends in rebel victory or low activity, and that this relationship is convex for rebel victories and concave for low activity outcomes.

Figure 7.1 illustrates the results graphically by plotting the cumulative incidence functions for each competing risks regression. For ease of interpretation, the graphs are drawn based on the binary variable operationalization of state violence per year.

Table 7.8: Competing Risks Regression: Agreement

| | I | II | III |
|---|---|---|---|
| Gov. Violence (0/1) | -0.118 | | |
| | (0.429) | | |
| Gov. Violence (ln) | | -0.032 | 0.046 |
| | | (0.088) | (0.178) |
| Gov. Violence (ln2) | | | -0.013 |
| | | | (0.022) |
| Log-Likelihood | -101.418 | -101.392 | -101.300 |
| Wald $\chi^2$ | .0759977 | .1318161 | .5315789 |
| Clusters | 148 | 148 | 148 |
| Weights | Yes | Yes | Yes |

+ p<0.1 * p<0.05, ** p<0.01, ***p<0.001
Robust standard errors clustered on conflict dyads in parentheses.
Weights based on entropy balancing.

The graphs in figure 7.1 depict the comparative cumulative incidence functions for the different conflict outcomes based on the competing-risks models I in tables 7.8, 7.9, 7.10, and 7.11. In each graph the y-axis shows the cumulative incidence of the distinct conflict outcome types, while the x-axis depicts the analysis time (conflict duration in days).

The graphs plot the cumulative incidence functions for different outcome types as time wears on. The red line represents the cumulative incidence function for dyads

the possibility that irregular wars and outside support for rebel groups are positively associated with the probability of rebel victory, while exerting a negative effect on the probability of government victory, that recruitment from excluded ethnic groups is negatively associated with all conflict outcomes but negotiated agreements, and that insurgent territorial control is negatively related to rebel victories and low activity outcomes. It is, however, important to keep in mind that these covariate effects should be interpreted with caution, as they are not in the center of the analysis, and that entropy weights strongly even out pre-treatment variation between treated and control units to increase our confidence in the estimated effect of state violence.

Table 7.9: Competing Risks Regression: Rebel Victory

| | I | II | III |
|---|---|---|---|
| Gov. Violence (0/1) | 0.345 | | |
| | (0.811) | | |
| Gov. Violence (ln) | | 0.380** | -1.052 |
| | | (0.141) | (0.741) |
| Gov. Violence (ln2) | | | 0.186+ |
| | | | (0.096) |
| Log-Likelihood | -26.277 | -22.815 | -18.762 |
| Wald $\chi^2$ | .181216 | 7.322597 | 35.67241 |
| Clusters | 148 | 148 | 148 |
| Weights | Yes | Yes | Yes |

+ p<0.1 * p<0.05, ** p<0.01, ***p<0.001
Robust standard errors clustered on conflict dyads in parentheses.
Weights based on entropy balancing.

Table 7.10: Competing Risks Regression: Gov. Victory

| | I | II | III |
|---|---|---|---|
| Gov. Violence (0/1) | -0.193 | | |
| | (0.878) | | |
| Gov. Violence (ln) | | -0.051 | 0.053 |
| | | (0.189) | (0.454) |
| Gov. Violence (ln2) | | | -0.020 |
| | | | (0.070) |
| Log-Likelihood | -25.830 | -25.818 | -25.796 |
| Wald $\chi^2$ | .0481707 | .0741361 | .1786836 |
| Clusters | 148 | 148 | 148 |
| Weights | Yes | Yes | Yes |

+ p<0.1 * p<0.05, ** p<0.01, ***p<0.001
Robust standard errors clustered on conflict dyads in parentheses.
Weights based on entropy balancing.

Table 7.11: Competing Risks Regression: Low Activity

| | I | II | III |
|---|---|---|---|
| Gov. Violence (0/1) | 0.737+ | | |
| | (0.430) | | |
| Gov. Violence (ln) | | 0.064 | 0.746** |
| | | (0.067) | (0.283) |
| Gov. Violence (ln2) | | | -0.130* |
| | | | (0.056) |
| Log-Likelihood | -84.921 | -86.029 | -83.400 |
| Wald $\chi^2$ | 2.936939 | .9220331 | 7.036513 |
| Clusters | 148 | 148 | 148 |
| Weights | Yes | Yes | Yes |

+ p<0.1 * p<0.05, ** p<0.01, ***p<0.001
Robust standard errors clustered on conflict dyads in parentheses.
Weights based on entropy balancing.

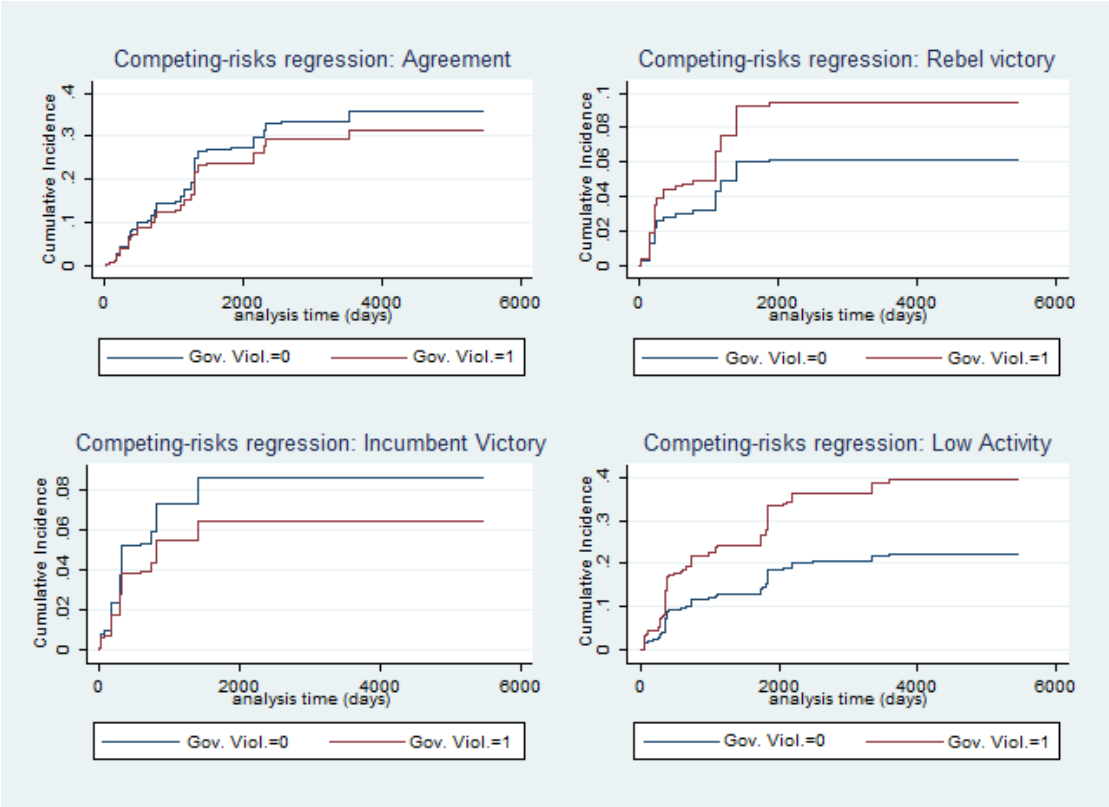


Figure 7.1: Comparative Cumulative Incidence Functions for Conflict Outcomes

affected by one-sided state violence, the blue one depicts the one for dyadic conflicts without one-sided state violence. The graph also incorporates the proportional subhazards assumption (Cleves et al., 2010, 384f.). All other variables are held at their median values. The graphs show, first, that the probability of rebel victories and low activity outcomes are increased for conflicts affected by state violence, while the opposite is true for negotiated settlements and government victories.

In sum, my findings lend support for $H3_a$, as they show that state violence increases the probability of rebel victory. The results also point into the direction that while indiscriminate state violence increases the probability of insurgent victories, the opposite may be true for government victories – as hypothesized in $H3_b$ –, although this effect has not shown to be statistically significant.

$H3_c$, which stated that indiscriminate state violence decreases the probability of negotiated settlements, is not supported by the analysis, as no statistically significant effect can be detected that links state violence to negotiated settlements.

The strongest support can be found for $H3_d$, according to which indiscriminate state violence increases the probability of low activity outcomes. The results further suggest that there might be a curvilinear effect of state violence, and that moderate levels are more likely to lead to low activity outcomes, while extreme levels are more likely to result in rebel victories. Taken together, the results suggest that indiscriminate state violence is deeply counterproductive, making both rebel victories and 'low activity' outcomes more likely. The latter is, as the least decisive outcome category, most likely to be prone to instability and conflict recurrence (Toft, 2010).

## 7.5 Conclusion

Civil wars often last for a long time, and once they have ended, many of them recur (O'Leary and Tirman, 2007; Quinn, Mason and Gurses, 2007; Toft, 2010; Carr, 2012). One common pattern in protracted conflicts is that fighting activity ceases and resumes at irregular intervals. There are numerous examples of temporarily inactive conflicts where remainders of the original insurgent organization remained mobilized and where armed competition subsequently resumed (O'Leary and Tirman, 2007, 14f.), as was the case with the EPL in Colombia or Sendero Luminoso in Peru.[55]

I have shown in this chapter that indiscriminate state violence is likely to promote rebel victories and nondecisive outcomes (such as 'low activity'). This implies, as theorized, that even though state violence frequently succeeds in suppressing active armed resistance in the short term, it is unlikely to be an effective tool of counterinsurgency in the longer term. Indeed, armed conflicts are likely to recur after petering out without decisive outcomes (such as victories or negotiated settlements): From 1950 to 2004, this type of outcome was followed by conflict recurrence within five years in almost 60 percent of all cases (Human Security Report Project, 2012, 174). Thus, while I have restricted the analysis to the determinants of conflict duration and outcome, the results

[55]Uppsala Conflict Data Program (Date of retrieval: June 25, 2013) UCDP Conflict Encyclopedia: `http://www.ucdp.uu.se/gpdatabase/gpcountry.php?id=126&regionSelect=5-Southern_Americas`, Uppsala University.

do carry implications for the risk of civil war recurrence. My findings also indicate that the standard operationalization of civil war termination – one or two years of no fighting activity – should be extended and refined, as such short periods of conflict inactivity are often weak indicators of longer-term political stability.

Methodologically, a number of aspects could be refined in future efforts. To start with, the multilevel data structure – dyads nested in conflict regions, which are nested in countries – could be explicitly modeled (Steenbergen and Jones, 2002). The statistical model should ideally also account for both unobserved heterogeneity and dependence among competing and repeated events.[56] These issues could be more appropriately addressed based on a larger dataset.

Moreover, future efforts should concentrate on disentangling the direct and indirect consequences of state violence, as the effects of state violence are contingent on its perception (Kalyvas, 2006), and as one-sided violence carries important signals that reach beyond direct exposure, particularly when reported in the media (e.g., Walter, 2009; Gleditsch, Hug, Schubiger and Wucherpfennig, 2011).

In sum, the findings support my argument that indiscriminate state violence tends to suppress armed competition in the short term, but that it promotes insurgent survival and success in the longer run. Theoretically, I have emphasized three pathways through which indiscriminate state violence affects conflict duration and outcome: insurgent mobilization, insurgent fragmentation, and counterinsurgent collective action. While the positive effect of state violence on insurgent mobilization has been relatively well documented in the literature so far, the remaining two pathways have been analyzed theoretically and empirically in chapter 5 and 6.

To conclude, the results resonate with the arguments of scholars who have suggested that even though civilian victimization might be an effective military strategy in the short term, it will backfire in the longer run (Arreguín-Toft, 2003), with stud-

[56]While models to account for both dependence among repeated events of the same type and heterogeneity have been put forward (Box-Steffensmeier, De Boef and Joyce, 2007; Box-Steffensmeier, De Boef and Sweeney, 2005), one that connects these issues to a competing risks approach has yet to be developed. Indeed, the problem of dependence between competing risks poses formidable challenges, as analytical solutions are often unavailable, especially in the context of more than 2 competing risks (Box-Steffensmeier and Jones, 2004, 179ff.).

ies that have pointed out the counterproductive effect of state violence (Kalyvas and Kocher, 2007; Kocher, Pepinsky and Kalyvas, 2011; Wood, 2003*a*) and with studies that have found grievance-driven conflicts to be less likely to end decisively (Cederman, Gleditsch and Buhaug, 2012). In short, the findings presented in this chapters suggest that indiscriminate state violence is not only morally wrong, but also harmful from a strategic point of view.

# Supplementary Material:

# Conflict Duration

Table 7.12: Dyads in Duration Models

| Side A | Side B | End Date | Duration† | Outcome†† |
|---|---|---|---|---|
| Afghanistan | Taliban | 28sep1996 | 1 | 2 |
| Afghanistan | Taliban | 31dec2003 | 1 | 0 |
| Afghanistan | UIFSA | 12nov2001 | 5 | 2 |
| Afghanistan | Hezb-i-Islami | 31dec1995 | 6 | 4 |
| Afghanistan, Soviet Union | Jamiat-i-Islami | 28apr1992 | 3 | 2 |
| Afghanistan, Soviet Union | Hezb-i-Wahdat | 28apr1992 | 3 | 2 |
| Algeria | Exile and Redemption | 31dec1991 | 0 | 4 |
| Algeria | GIA | 31dec2003 | 10 | 0 |
| Algeria | FIS | 01oct1997 | 4 | 1 |
| Angola, Namibia | UNITA | 22feb2002 | 4 | 1 |
| Angola, Cuba | UNITA | 20nov1994 | 5 | 1 |
| Angola | FLEC | 31dec2003 | 12 | 0 |
| Azerbaijan | Husseinov Military Faction | 21jun1993 | 0 | 2 |
| Azerbaijan | Republic of Nagorno-Karabakh | 04may1994 | 2 | 1 |
| Azerbaijan | OPON forces | 17mar1995 | 0 | 3 |
| Bosnia and Herzegovina | Croatian irregulars | 18mar1994 | 1 | 1 |
| Bosnia and Herzegovina | Serbian Republic of BiH | 14dec1995 | 3 | 1 |
| Bosnia and Herzegovina | Serbian irregulars | 14dec1995 | 3 | 1 |
| Bosnia and Herzegovina | Auton. Prov. of Western Bosnia | 14dec1995 | 2 | 3 |
| Bosnia and Herzegovina | Croatian Republic of BiH | 18mar1994 | 1 | 1 |
| Myanmar | Rohingya Solidarity Organisation | 31dec1994 | 3 | 4 |
| Myanmar | KNPP | 31dec1992 | 0 | 4 |
| Myanmar | Arakan Rohingya Islamic Front | 31dec1992 | 1 | 4 |
| Myanmar | BMA | 31may1997 | 1 | 3 |
| Myanmar | NMSP | 31dec1990 | 1 | 4 |
| Myanmar | KNPP | 15oct1996 | 0 | 4 |
| Myanmar | Shan State Army - South (SSA-S) | 31dec2003 | 7 | 0 |
| Myanmar | UWSA | 31dec1997 | 0 | 1 |
| Myanmar | MTA | 03jan1996 | 7 | 1 |
| Myanmar | ABSDF | 31dec1994 | 4 | 4 |
| Burundi | Palipehutu-FNL | 31dec2003 | 6 | 0 |
| Burundi | Frolina | 31dec1997 | 0 | 1 |
| Burundi | Palipehutu | 31dec1992 | 1 | 1 |
| Burundi | CNDD | 31dec2003 | 9 | 0 |
| Cambodia, Vietnam | KPNLF | 23oct1991 | 2 | 1 |
| Cambodia, Vietnam | Khmer Rouge/PDK | 25oct1998 | 9 | 4 |
| Cambodia, Vietnam | FUNCINPEC/ANS | 23oct1991 | 2 | 1 |
| Central Afr. Rep., Libya | Faction of F.B. | 15mar2003 | 2 | 2 |
| Chad | MPS | 02dec1990 | 0 | 2 |
| Chad | Islamic Legion | 31dec1990 | 1 | 4 |
| Chad | FNT | 16oct1994 | 2 | 1 |
| Chad | CNR | 31dec1994 | 2 | 4 |
| Chad | CSNPD | 11aug1994 | 2 | 1 |
| Chad | MDD [-FANT] | 20may1998 | 7 | 1 |
| Chad | FARF | 07may1998 | 1 | 1 |
| Chad | MDJT | 31dec2002 | 3 | 4 |
| Chad | MOSANAT | 31dec1989 | 0 | 4 |
| Chad | Revolutionary Forces of 1 April | 31dec1989 | 0 | 4 |
| Comoros | MPA | 07sep1997 | 0 | 1 |
| Congo-Brazz. | FDU | 15oct1997 | 0 | 2 |
| Congo-Brazz., Angola, Chad | Ntsiloulous | 31dec2002 | 4 | 1 |
| Congo-Brazz., Angola, Chad | Cocoyes | 29dec1999 | 1 | 4 |
| Congo-Brazz., Angola, Chad | Ninjas | 29dec1999 | 1 | 4 |

† Duration of dyadic conflict episode in years.
†† Outcome: 1:negotiated settlement, 2: rebel victory, 3: gov. victory, 4: low activity/other, 0: ongoing
Source: Cunningham, Gleditsch, and Salehyan (2009)

Table 7.13: Dyads in Duration Models Cont'd

| Side A | Side B | End Date | Duration† | Outcome†† |
|---|---|---|---|---|
| DRC (Zai), Zim, Ang, Namib, Chad | RCD Faction | 31dec2001 | 2 | 1 |
| DRC (Zai), Zim, Ang, Namib, Chad | RCD | 31dec2001 | 3 | 1 |
| DRC (Zai), Zim, Ang, Namib, Chad | MLC | 31dec2001 | 3 | 1 |
| DRC (Zai) | AFDL | 17may1997 | 1 | 2 |
| Croatia | Serbian Republic of Krajina | 12nov1995 | 3 | 3 |
| Croatia | Serbian irregulars | 12nov1995 | 3 | 3 |
| Djibouti | FRUD | 26dec1994 | 3 | 1 |
| Egypt | al-Gamaa al-Islamiyya | 31dec1998 | 5 | 4 |
| Eritrea | EIJM | 31dec1999 | 2 | 4 |
| Eritrea | EIJM | 31dec2003 | 0 | 0 |
| Ethiopia | OLF | 31dec2003 | 4 | 0 |
| Ethiopia | ONLF | 31dec2003 | 7 | 0 |
| Ethiopia | ARDUF | 31dec1996 | 0 | 4 |
| Ethiopia | al-Itahad al-Islami | 31dec1999 | 3 | 4 |
| Georgia | Republic of Abkhazia | 01dec1993 | 1 | 1 |
| Georgia | Zviadists | 15oct1993 | 0 | 4 |
| Georgia | Anti-government alliance | 15jan1992 | 1 | 2 |
| Georgia | Republic of South Ossetia | 14jul1992 | 0 | 1 |
| Guinea | RFDG | 31dec2001 | 1 | 4 |
| Guinea-Bissau,Senegal,Guinea | Military Junta | 07may1999 | 1 | 2 |
| India | ABSU | 31dec1990 | 1 | 4 |
| India | UNLF | 31dec2003 | 9 | 0 |
| India | KNF | 31dec1997 | 0 | 4 |
| India | MCC | 31dec2003 | 14 | 0 |
| India | UFLA | 31dec2003 | 14 | 0 |
| India | BDSF/NDFB | 31dec2003 | 11 | 0 |
| India | Naxalites/PWG | 31dec2003 | 14 | 0 |
| India | NLFT | 31dec2003 | 11 | 0 |
| India | NSCN | 01aug1997 | 5 | 1 |
| India | Kashmir Insurgents | 31dec2003 | 14 | 0 |
| India | ATTF | 31dec2003 | 8 | 0 |
| Indonesia | GAM | 15jun1991 | 2 | 3 |
| Indonesia | Fretilin | 31dec1992 | 0 | 4 |
| Indonesia | GAM | 31dec2003 | 4 | 0 |
| Indonesia | Fretilin | 31dec1998 | 1 | 1 |
| Iran | Mujahideen e Khalq | 31dec2001 | 1 | 4 |
| Iraq | PUK | 15dec1993 | 4 | 4 |
| Iraq | KDP/DPK | 31dec1993 | 4 | 4 |
| Iraq | SCIRI | 31dec1996 | 5 | 4 |
| Israel | AMB | 31dec2003 | 1 | 0 |
| Israel | Hamas | 31dec2003 | 10 | 0 |
| Israel | PNA | 31dec2003 | 7 | 0 |
| Israel | Hezbollah | 31dec1999 | 9 | 4 |
| Israel | Fatah | 31dec2003 | 3 | 0 |
| Israel | PFLP | 31dec2003 | 14 | 0 |
| Israel | PFLP-GC | 31dec2003 | 14 | 0 |
| Cote D'Ivoire | MPIGO | 31dec2002 | 0 | 4 |
| Cote D'Ivoire | MJP | 31dec2002 | 0 | 4 |
| Cote D'Ivoire | MPCI | 31dec2002 | 0 | 4 |
| Laos | LRM | 31dec1990 | 1 | 4 |
| Lebanon | Lebanese Army (Aoun) | 13oct1990 | 1 | 3 |

† Duration of dyadic conflict episode in years.
†† Outcome: 1:negotiated settlement, 2: rebel victory, 3: gov. victory, 4: low activity/other, 0: ongoing
Source: Cunningham, Gleditsch, and Salehyan (2009)

Table 7.14: Dyads in Duration Models Cont'd

| Side A | Side B | End Date | Duration† | Outcome†† |
|---|---|---|---|---|
| Lesotho | Military Faction | 24sep1998 | 0 | 3 |
| Liberia | NPFL | 26aug1995 | 6 | 4 |
| Liberia | LURD | 31dec2003 | 3 | 0 |
| Macedonia | UCK | 12aug2001 | 0 | 1 |
| Mali | FIAA | 31dec1994 | 0 | 4 |
| Mali | MPA | 31dec1990 | 0 | 1 |
| Mexico | EZLN | 12jan1994 | 0 | 1 |
| Moldova | Dniestr Republic | 21jul1992 | 0 | 1 |
| Nepal | CPN-M/UPF | 31dec2003 | 7 | 0 |
| Niger | FDR | 31dec1996 | 0 | 4 |
| Niger | CRA | 09oct1994 | 0 | 1 |
| Niger | FLAA | 31dec1992 | 0 | 1 |
| Pakistan | MQM | 13dec1996 | 1 | 4 |
| Papua New Guinea | BRA | 15jun1996 | 7 | 1 |
| Peru | MRTA | 31dec1993 | 4 | 4 |
| Philippines | MILF | 31dec2003 | 13 | 0 |
| Philippines | Abu Sayyaf | 31dec2003 | 9 | 0 |
| Philippines | MNLF-NM | 31jan2002 | 1 | 0 |
| Romania | National Salvation Front | 25dec1989 | 0 | 2 |
| Russia | Republic of Chechnya | 15aug1996 | 2 | 1 |
| Russia | Republic of Chechnya | 31dec2003 | 4 | 0 |
| Russia | Wahhabi movement | 24sep1999 | 0 | 3 |
| Rwanda | FPR | 19jul1994 | 4 | 2 |
| Rwanda | Opposition alliance | 31dec2002 | 4 | 4 |
| Senegal | MFDC | 31dec2003 | 13 | 0 |
| Sierra Leone, United Kingdom | RUF | 10nov2000 | 9 | 1 |
| Sierra Leone, United Kingdom | AFRC | 10mar1998 | 1 | 3 |
| Sierra Leone, United Kingdom | Kamajors | 31dec1999 | 1 | 4 |
| Somalia | USC | 29jan1991 | 2 | 2 |
| Somalia | SPM | 31dec1991 | 2 | 2 |
| Somalia | SRRC | 31dec2002 | 1 | 4 |
| Somalia | USC Faction | 31dec1996 | 5 | 4 |
| Soviet Union | Gov. of Armenia and ANM | 15aug1991 | 1 | 4 |
| Spain | ETA | 25oct1992 | 1 | 4 |
| Sri Lanka | LTTE | 31dec2003 | 12 | 0 |
| Sri Lanka | JVP | 13nov1989 | 0 | 3 |
| Sudan | Faction of SPLM | 21apr1997 | 6 | 1 |
| Tajikistan, Russia, Uzbekistan | UTO | 23dec1996 | 4 | 1 |
| Tajikistan | Mov. for Peace in Tajikistan | 09nov1998 | 0 | 3 |
| Turkey | Devrimci Sol | 07oct1992 | 1 | 4 |
| USA and allies | al-Qaida | 31dec2002 | 1 | 4 |
| Uganda | UPA | 31dec1991 | 2 | 4 |
| Uganda | WNBF | 31dec1996 | 0 | 4 |
| Uganda | ADF | 31dec2003 | 7 | 0 |
| Uganda | LRA | 31dec2003 | 9 | 0 |
| Uzbekistan, Kyrgyzstan | MIU | 31dec2000 | 0 | 4 |
| Yemen | Dem. Republic of Yemen | 07jul1994 | 0 | 3 |
| Yugoslavia | UCK | 03jun1999 | 1 | 1 |
| Yugoslavia | Republic of Croatia | 15dec1991 | 0 | 4 |
| Yugoslavia | Croatian irregulars | 15dec1991 | 0 | 4 |
| Yugoslavia | Republic of Slovenia | 15jul1991 | 0 | 1 |

† Duration of dyadic conflict episode in years.
†† Outcome: 1:negotiated settlement, 2: rebel victory, 3: gov. victory, 4: low activity/other, 0: ongoing
Source: Cunningham, Gleditsch, and Salehyan (2009)

# Part V

# Conclusion

# Chapter 8

# Overall Conclusions and Outlook

In this dissertation I have offered a theoretical framework on the consequences of state violence for subsequent patterns of wartime collective action that incorporates multiple levels of analysis. In the preceding chapters, I have investigated the impact of indiscriminate state violence on three distinct yet related dynamics and types of dependent variables – concerted defections within insurgent organizations, counterinsurgent collective action on behalf of civilian communities, and processes underlying civil war duration and outcome. In contrast to the bulk of previous research, I have relaxed the assumption of conflict dynamics being driven by two types of unitary actors – rebel groups and the state – and, consistent with the emphasis on cross-level theorizing, have argued from a perspective that incorporates endogenous preference formation at the level of individuals and collective actors. I proceed in this concluding chapter by summarizing the main findings of the empirical analyses and by discussing their broader theoretical and empirical implications as well as remaining questions and opportunities for future research.

Chapter 5 focused on the impact of indiscriminate state violence on the internal dynamics of insurgent organizations – specifically, their vulnerability to the concerted defection that underlies organizational splintering. Departing from the standard assumption of rebel organizations as unitary actors with internally homogeneous and stable preferences, I have argued that indiscriminate state violence has a positive effect on the probability and severity of insurgent fragmentation ($H1_a$ and $H1_b$) through the combined

effect of increasing the supply of fresh recruits and strengthening bonds between combatants that remain in regular contact, while at the same time undermining secondary cohesion. I have further argued that the positive effect of indiscriminate state violence on the vulnerability of insurgent organizations to fragmentation should be mitigated where insurgent institutions that forge and sustain secondary cohesion are strong, which was theorized to be the case in irregular war, where the challenges to internal control are greatest ($H1_c$). Based on an analysis of 114 post-Cold War conflicts, I have found support for all of these claims ($H1_a$, $H1_b$, and $H1_c$). Specifically, I have provided novel evidence that indiscriminate state violence substantially increases the probability of insurgent fragmentation, and that this effect is much weaker in irregular than non-irregular conflicts. Theoretically, the chapter helps to advance our understanding of the effects of state violence by illuminating a relationship largely overlooked in previous research, while at the same time contributing to an emerging research program on the causes and consequences of armed groups' institutions on one side and and insurgent cohesion and fragmentation on the other.

Chapter 6 was concerned with another pathway through which state violence influences subsequent conflict dynamics and processes of conflict duration and termination. Specifically, I have theorized and examined the impact of exposure to indiscriminate state violence on counterinsurgent collective action at the level of civilian communities. My argument suggests that one common and particular type of indiscriminate state violence, marked by direct and collective targeting, is likely to promote counterinsurgent mobilization as a form of militarized local governance when insurgents are weak in terms of territorial or internal control (H2), a condition argued to be most likely met in the wake of direct state violence in irregular war. Empirically, I have studied subnational variation in state violence and counterinsurgent mobilization during the first decade of the Peruvian civil war (1980-88). Relying on fine-grained geo-referenced data provided by the Peruvian Truth and Reconciliation Commission and two distinct identification strategies, I have found clear support for a positive effect of state violence on subsequent counterinsurgent collective action in Peruvian villages and towns. To my knowledge,

this is the first study to provide rigorous and in-depth evidence of the impact of state violence on counterinsurgent mobilization at the community level, and it provides valuable insight into this important and theoretically complex feature of civil wars. It not only expands the literature on the consequences of state violence on subsequent conflict dynamics, but also adds to the growing body of research on counterinsurgent actors that operate outside the realm or at the margins of state control, and on the consequences of wartime violence for patterns of local collective action and institutional change.

Importantly, the dynamics theorized and examined in chapters 5 and 6 are related in that they are both promoted by state violence and reinforced by each other and the underlying mechanisms. For instance, the attenuation of intra-organizational coordination that underlies insurgent fragmentation – as well as processes of insurgent fragmentation themselves – are conducive to counterinsurgent collective action by diluting insurgent internal control, while at the same time, counterinsurgent collective action on behalf of civilian communities is likely to feed back into the weakening of the insurgents' intra-organizational coordination.

Chapter 7 has explored the consequences of state violence – including the implications of the mechanisms theorized in chapters 5 and 6 – for processes underlying conflict duration and termination at the macro level, i.e., the level of conflict dyads. I have argued that while indiscriminate state violence will disrupt armed competition in the short term, it will contribute to insurgent survival and insurgent success in the longer run. I have further argued that both the prospects of incumbent victories and negotiated settlements should be reduced by indiscriminate state violence. Carefully controlling for alternative determinants of both state violence and conflict termination, I have tested these hypotheses in a quantitative analysis of post-Cold War intra-state armed conflicts active between 1989 and 2003. I have found that indiscriminate state violence significantly increases the probability of insurgent victory ($H3_a$) and conflicts ending in 'low activity' outcomes ($H3_d$), a type of conflict termination that has been shown to be especially conducive to conflict recurrence in previous research. More specifically, this relationship turned out to be convex for rebel victories and concave for low activity out-

comes, suggesting that moderate levels of violence are more likely to lead to low activity outcomes, while extreme levels are more conducive to rebel victories. Taken together, the results suggest that indiscriminate state violence is not only morally wrong, but also deeply counterproductive, making both rebel victories and 'low activity' outcomes – and thus, conflict recurrence – more likely. I have also found partial support for my hypothesis of a negative effect of indiscriminate state violence on the prospects of incumbent victory ($H3_b$), although this effect has not turned out to be statistically significant in the dataset examined. Surprisingly, however, no evidence was found suggesting a negative impact of indiscriminate state violence on the probability of negotiated settlements ($H3_c$). One potential explanation of this finding is that negotiated settlements are a very broad category, with some agreements resembling defeats or victories more than genuinely acceptable solutions for all sides.[1] Future studies should look into this possibility as well as into the role of state violence in promoting conflict recurrence, something that was not directly tested in my analysis due to data restrictions. Further investigations should also consider alternative operationalizations of conflict termination that capture longer periods of political stability.

In summary, drawing on both crossnational ('macro') and subnational ('micro') data and a combination of methodological tools for causal inference in observational studies, I have provided novel and detailed evidence of the consequences of state violence for subsequent conflict dynamics that have previously been largely overlooked. My findings significantly advance the understanding of the relationship between state violence and wartime collective action by showing how social processes within insurgent organizations as well as within civilian communities are affected by state violence, and how these dynamics relate to conflict processes at the macro level.

One important feature of these results is that they help to reconcile the apparent contrariness of previous findings, such as a positive effect of state violence on insurgent recruitment (Nillesen and Verwimp, 2009) on one side and a negative effect on insurgent violence on the other (Lyall, 2009), or a positive effect on pro-social behavior at

[1] Likewise, it is possible to think of victories as a form of implicit settlement (e.g., Wucherpfennig et al., 2012).

the level of civilian communities on the one hand (Bellows and Miguel, 2009; Gilligan, Pasquale and Samii, 2011; Voors et al., 2012) and increased local polarization on the other (Weidmann and Zürcher, 2013). My theoretical arguments suggest that these effects are indeed compatible with each other, but that this compatibility remains obscured by an exclusive focus on one particular level of analysis.

In terms of the policy-relevant implications of my findings, I have illuminated some mechanisms through which wartime collective action gives rise to institutional transformations within insurgent organizations and civilian communities that have important implications for both wartime and post-conflict dynamics.

To begin with, the tendency of indiscriminate state violence to undermine secondary cohesion in insurgent organizations is problematic not only because it has the potential to aggravate information asymmetries through insurgent fragmentation and hence, to complicate bargaining processes, but also because secondary cohesion has been argued to be an important determinant of insurgent internal control and hence, of insurgent violence (Wood, 2009; Wood, 2010; Wood, 2012).[2] In other words, indiscriminate state violence is not only ethically wrong and strategically counterproductive in itself, but it also potentially contributes to the escalation of opportunistic insurgent violence against noncombatants.[3]

Furthermore, my results point to the possibility that while wartime violence may indeed harm and reconfigure the social fabric of affected communities, it may nevertheless facilitate certain types of collective action not only through the creation of specific incentives but also through the transformation of local perceptions and preferences regarding the common good and how to achieve it. This is consistent with recent findings on the political activation of individuals and communities through exposure to wartime violence (Blattman, 2009; Bellows and Miguel, 2009; Gilligan, Pasquale and Samii, 2011; Voors et al., 2012). However, my findings do not imply that the activation of local counterinsurgent mobilization is an indication of the military 'effectiveness' of indiscriminate state

[2]On the consequences of weakened central control for repertoires of insurgent violence in Peru see Wood, 2008, 547; Wood, Spring 2011 (personal communication).

[3]Note that high levels of *strategic* insurgent violence against civilians may also occur under conditions of high internal insurgent control (Wood, 2012).

violence. First, indiscriminate state violence typically promotes pro- and counterinsurgent mobilization simultaneously, a twin process that I have argued tends to impede long-term conflict resolution. Second, and despite the fact that state forces often benefit in their counterinsurgency campaigns from such community-based mobilization – at least initially –, militia actors are often hard to control and may develop their own agendas. In cases where they are affiliated with state forces, militias may also exacerbate grievances and increase civilian support for insurgent groups if they are themselves associated with atrocities (e.g., Branch and Wood, 2010, 7).

While I have stressed the polarizing effect of indiscriminate state violence in simultaneously promoting pro- and counterinsurgent mobilization at the local level, it should be noted that the long-term social and political implications of community-based counterinsurgent collective action are complex and diverse. The *rondas* in Peru, while themselves perpetrators of human rights violations and linked to corruption and the perpetuation of unequal power relations in post-war settings, also helped to restore governance and a sense of agency in their communities (Starn, 1995; Comisión de la Verdad y Reconciliación, 2003*b*; García-Godos, 2006) and helped to reintegrate former *senderistas* and insurgent collaborators back into communal life in some places (García-Godos, 2006, 274). Moreover, a profound transformation of local institutions for governance and a transfer of political power to armed actors did not always occur, as sometimes the *rondas* were subordinated to traditional figures of authority (Fumerton, 2001). After the war, the *rondas* were in many places absorbed into regular community structures, their leaders at times entering official politics, and the Peruvian government continues to seek alliances with them (Guerrero, 2002; Asfura-Heim and Espach, 2013; Degregori, 2012*b*, 66). In other places, counterinsurgent militias proved to be less amenable to integration into regular politics. The United Self-Defense Forces (AUC) in Colombia, for instance, started out as organizations to protect rural communities and turned into powerful allies of the state's counterinsurgency forces, yet also became deeply involved in human rights violations, drug trafficking, and other criminal activities (Chernick, 2007; Asfura-Heim and Espach, 2013). In Guatemala, the civil patrols – many of which were imposed and

controlled by the military as part of its counterinsurgency campaign during the civil war in the 1980s –, still patrol and enforce vigilante justice today, over two decades after the civil war ended (Bateson, 2012*b*). Thus, the functions and trajectories of civil militias appear to be diverse, and more research is needed to uncover both subnational and cross-national variation in the wartime reconfiguration of civilian networks and institutions, and to advance the understanding of their long-term implications (Wood, 2008).

The presented findings thus point to the importance of several questions that have received little attention in previous research, and that were beyond the scope of this dissertation: When does counterinsurgent collective action in civil wars lead to long-term – as opposed to temporary – processes of militarization, and what are the post-war social and political implications of such institutional transformations? What determines variation in the resilience of insurgent institutions apart from the type of warfare, and how do insurgent leaders deal with oversupplies in recruits and the challenge of internal splits? How does state repression affect strategies of insurgent violence, and how do civilian communities respond to these strategies? Future studies examining these issues could make valuable contributions to our understanding of civil war dynamics and their social and political legacies.

The presented arguments and results also yield broader implications for theory building and future studies. First of all, relaxing the assumption of insurgent organizations as unitary actors with internally uniform and stable preferences helps to uncover dynamics that are otherwise difficult – if not impossible – to detect. For example, processes of insurgent fragmentation and ensuing insurgent competition can help to explain why conflict activities cease in the short term yet get drawn out in the longer run in the wake of state violence, as argued in this dissertation.

Second, and in a similar vein, studies of macro-level civil war dynamics could benefit by rigorously theorizing and integrating processes at the level of civilian communities and within insurgent organizations, rather than proceeding from the standard assumption of armed competition being exclusively driven by the strategic interaction of two actors. Indeed, progress can be made by an explicit theoretical integration of multiple levels of

analysis, as shown in this dissertation and called for by authors such as Coleman (1986) – and more recently Cederman, Gleditsch and Buhaug (2012) and Kalyvas (2012).

Third, there is great potential in future research to test and refine the myriad of assumptions about civilian behavior that underlie current studies of civil war, particularly those studies interested in the consequences of wartime violence. Specific presuppositions about patterns of civilian agency are integral parts of current theories, yet so far little systematic effort has been devoted to study and refine these assumptions. An advanced understanding of wartime civilian agency will not only benefit the study of armed conflict, but also provide insights into the foundations of social resilience – "the capacity of groups of people bound together in organizations, (...) communities, or nations to sustain and advance their well-being in the face of challenges" (Hall and Lamont, 2013, 64).

In conclusion, the results presented in this dissertation suggest that state violence may have much broader and more complex effects on conflict dynamics than previously thought. In particular, I have demonstrated theoretically and empirically that indiscriminate state violence against civilians promotes fragmentation of insurgent organizations and suggested an empirically supported critical role for insurgent institutions in moderating this effect. I have also shown that indiscriminate state violence can promote civilian counterinsurgent mobilization and provided novel insight into the conditions and mechanisms through which this effect is achieved. Finally, my analysis systematically demonstrates that indiscriminate state violence, while suppressing conflict activity in the short term, is ultimately deeply counterproductive. Thus, in this dissertation I have advanced and tested several previously underexplored mechanisms that may account for some of the conflicting findings of past research, and have contributed to the literature on the consequences of state violence for subsequent conflict processes, as well as to the nascent research programs on civilian collective action, insurgent cohesion and defection, and institutional change during civil war.

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